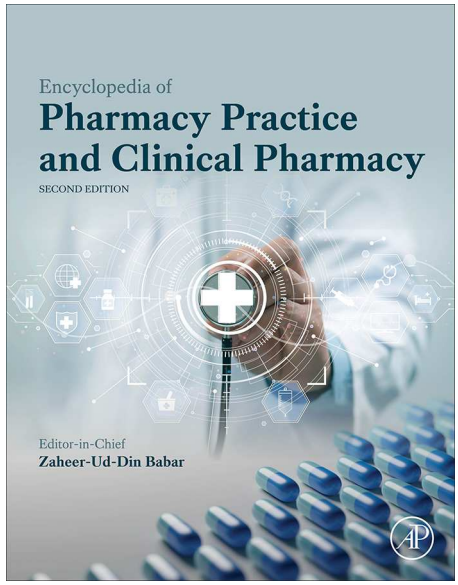
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Brhlikova, P. and Pollock, A. (2027) Aligning Market Entry With Public Health Need for Medicines? The Authorisation of Essential Medicines. In: Zaheer-Ud-Din Babar (ed.) *Encyclopedia of Pharmacy Practice and Clinical Pharmacy 2nd Edition,* vol. 2, pp. 619–627. UK: Elsevier.

http://dx.doi.org/10.1016/B978-0-443-26472-6.00190-X

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Aligning Market Entry With Public Health Need for Medicines? The Authorisation of Essential Medicines

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Abstract

This chapter explains how prioritising medicines for public health need with its focus on the essential medicines concept, access, and affordability differs from market authorisation which is a technical assessment of safety, efficacy, and quality. It shows the various ways the WHO has been supporting countries in their efforts to make priority medicines available in contrast to industry. It recommends that countries must include prioritisation of essential medicines in the functions and mandate of national medicines regulatory authorities thereby ensuring the linking of market authorisations to public health needs; national drug registers should be electronically linked to essential medicines lists.

Key Points

- The essential medicine concept's key focus is on meeting priority healthcare needs, access, and affordability.
- Market registration is vital to ensure the quality, safety, and efficacy before a product is allowed to enter the market.
- Research has highlighted the gap between the essential medicines concept and market registration.
- In most countries the regulation of medicines and prioritisation of medicines is undertaken by different divisions within the health ministries and the lack of coordination results in under-registration of essential medicines and over-registration of products not listed as essential.
- Countries must include prioritisation of essential medicines in the functions and mandate of national medicines regulatory authorities and ensure that market authorisations prioritise public health needs.

Introduction

Access to essential medicines, one of the six building blocks of health systems (WHO, 2007), is a key component of universal health coverage (WHO-UHC) and central to achieving the sustainable development goal of good health and wellbeing (UN, 2015 agenda). Since the 1970s, the WHO has made strenuous efforts to facilitate universal access to affordable essential medicines across the world. In a crowded medicine market place the essential medicines concept is intended to "carve out a core subset of therapeutic substances from the broader universe of commercial pharmaceutical products, and appropriate them into a public health commons" (van den Ham *et al.*, 2011). The aim is to enable countries to use the essential medicines concept to prioritise medicines according to public health needs.

The history of essential medicines is rooted in the WHO response to the failures of the market and the interests of shareholders which is to both stimulate, create and respond to demand rather than need. By the early 1970s low-income countries found themselves overwhelmed by pharmaceutical products and high pharmaceutical expenditure relative to overall health spending. The report by the Director-General (WHO, 1975) noted that resources are often wasted on high-cost, marginally useful or irrelevant medicines while large proportions of population lack access to essential medicines. In 1975, the World

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Health Assembly, "[c]onvinced of the necessity of developing drug policies linking drug research, production and distribution with the real health need" requested the Director General to develop tools to assist Member States in the formulation of national medicines policies and in the selection and procurement of essential medicines addressing their national health needs (World Health Assembly, 1975). It resulted in the development of the essential medicines concept, and its main strategy, the Essential Medicines List (EML). The EML is a limited list of medicines covering all therapeutic classes and is the most widely used tool for prioritising medicines. The list must be implemented as part of comprehensive national medicines policies that cover licensing, procurement, price regulation, and local manufacturing.

However, while the essential medicines concept was an attempt to tame the market it could not dictate market access as it is not embedded into the regulatory decisions about market authorisation. Rather, it is used, in the post-authorisation stage, to narrow down the procurement, prescribing, and use of medicines in public health sector. Many regulatory authorities, with no mandate to prioritise essential medicines, are thus overwhelmed by marketing applications which are too often driven by profitability, not need. For this reason, the WHO has had to find a variety of support mechanisms to enable countries health departments to operationalise essential medicines concept and lists and to support national regulatory authorities, especially in low- and middle-income countries (LMICs).

This chapter explains how prioritising medicines for public health need with its focus on the essential medicines concept and access and affordability differs from market authorisation (also known as registration) which is a technical assessment of safety, efficacy, and quality. It goes on to shows the various ways the WHO has been supporting LMICs in their efforts to make priority medicines available and accessible.

It is important to note from the outset the pharmaceutical industry opposed the essential medicines list (as did Member States with strong industry base) and found ways of circumventing it. Today the essential medicines concept is being increasingly undermined. First, through applications to the WHO Model List which are increasingly criticised for including high-cost medicines.

Second through Health Technology Assessment (HTA) which is rooted in incorporation rather than selection of medicines; in this process, need has been instrumentalised in a technocratic way such that the focus has shifted to individual needs out with consideration of affordability of medicines and priority needs at the population level.

Thirdly, the marketing authorisation process has changed to allow new routes to enable rapid market access for industry. In respect of HTA and new routes for accelerating marketing authorisations there is growing evidence that safety and efficacy and evidence of benefit are being sidelined while public health need, access and affordability are left at the front door. We draw attention to these developments with their inherent risks and costs. We end by rearticulating the importance of renewing the focus on the principles of the essential medicines concept and call for bringing marketing authorisations into alignment in order to better address public health needs.

Medicines Prioritisation and Essential Medicines Concept

To deal with the multitude of medicinal products in the market country health systems employ various approaches to select medicines that address priority health needs of the population. The task of medicines prioritisation is typically assumed by the Ministry of Health, directly overseeing the public health system, or by National Medicine Regulatory Authorities (NMRAs) housed within or outside the Ministry of Health.

About three quarters of WHO Member States adopt the essential medicines concept and develop their national essential medicine lists (NEMLs) based on the WHO's Model List of Essential Medicines. Essential medicines are carefully selected on the basis of efficacy, safety, cost-effectiveness, and affordability and their incorporation into standard treatment guidelines (STGs) to guide health care professionals in prescribing treatments to their patients. They *"are intended to be available within the context of functioning health systems at all times in adequate amounts, in the appropriate dosage forms, with assured quality and adequate information, and at a price the individual and the community can afford"* (Laing *et al.*, 2003).

WHO's first Model List, published in 1977 contained 187 medicines. The Model List has been updated every two years, with the most recent version listing 523 medicines released in 2025 (PAHO, 2026). Since 2002, the Model List has two components; a core list of 'the minimum medicine needs for a basic healthcare system, listing the most efficacious, safe and cost–effective medicines for priority conditions; and a complementary list of "essential medicines for priority diseases, for which specialized diagnostic or monitoring facilities, and/or specialist medical care, and/or specialist training are needed" (Laing *et al.*, 2003). In 2007, a Model List of Essential Medicines for Children (EMLc) was introduced to prioritize age-appropriate formulations of priority medicines (WHO, 2026a). The 2017 version of the Model List incorporated for the first time AWaRe – Access, Watch, Reserve – classification of antibiotics specifying optimal consumption levels to preserve effectiveness of available antibiotics and limit emergence of antibiotic resistance (WHO, 2019).

The essential medicines concept is intended to be flexible and adaptable. The purpose of the Model List is to assist countries in their own medicine prioritisation reflecting their specific healthcare needs and settings. As a result, the number of included medicines varies across countries. A WHO survey conducted in 2007 reported that 134 of 155 responding countries had a NEML with a global median of 397 medicines listed and LICs more likely to have a shorter list than HICs (van den Ham *et al.*, 2011). A more recent analysis of 137 NEMLs posted in the WHO Repository in 2017 found a global median of 310 medicines prioritised, with NEMLs listing between 44 and 983 medicines (Persaud *et al.*, 2019). Of concern are the significant differences between

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NEMLs and WHO Model List reported by the later study, ranging from 93 to 815 (median: 296; Persaud *et al.*, 2019). A misalignment with the WHO Model List and retention of outdated medicines in NEMLs have been examined at medicines and therapeutic class level (Babatunde *et al.*, 2024; Charles *et al.*, 2019) and highlight the need for further optimisation of NEMLs.

It is crucial that the development of EMLs is evidence-based and interlinked with other components of medicines policy to ensure access, affordability, and appropriate use of medicines such as medicines procurement and supply, evidence-based recommendations for their use, and utilisation monitoring (van den Ham *et al.*, 2011). The selection of essential medicines should be thus underpinned by evidence-based standard treatment guidelines (STGs) which are used by clinicians treating patients. Even within the WHO, this is not always the case due to insufficient coordination between WHO departments (Piggott *et al.*, 2024).

Inconsistencies between NEMLs and STGs have been reported for LMICs. Few countries manage to update their NEMLs regularly and in line with STG revisions due to resource constraints. For instance, the first edition of the Ugandan STGs was developed in 1993 and revised in 2003, 2010, 2012, 2016, and in 2023, with the later revisions undertaken in line with the Ugandan EML (published 1997, 2012, 2016, 2023); in Tanzania, NEML and STG revisions are aligned and published as one document (1991, 2007, 2012, 2013, 2017 and 2021); while Kenya's STGs were last updated in 2009 for community and primary care level and in 2024 for hospital care level 4–6, with the most recent version of the NEML published in 2023 (Babatunde *et al.*, 2024; Kenya, 2023).

Most of the countries with NEML use their priority list for procurement of medicines for public health systems. The Model List is also used by other United Nations organisations and NGOs procuring medicines for their programmes in LMICs.

The selection and addition of a medicine on to the WHO and NEMLs is often believed to signal demand thereby incentivising manufacturers to supply priority medicines and spurring price competition (Jenei, 2025). However, low government spending on pharmaceuticals (Wirtz *et al.*, 2017) weakens the signal.

Essential Medicines and High Income Countries

By 2017, 137 of the 195 WHO Member States were reported to have a NEML (Persaud *et al.*, 2019). Most of these were LMICs. Fewer than a quarter (21/79) of HICs had an essential medicines list (Taglione and Persaud, 2021), although some (such as Germany, Australia, the UK) prioritise medicines in other ways through local formularies and reimbursement mechanisms (Brhlikova *et al.*, 2023).

The COVID-19 pandemic exposed vulnerabilities in drug supply chains that relied on a few manufacturers for raw materials or finished pharmaceutical products and forced countries around the world to re-think monitoring availability of medicines and their local/regional production (see e.g., The White House, 2021; UNCTAD, 2020). Even the US, a staunch opponent of the Model List, has realised its potential use in securing access to critical medicines. In 2020, the task of "identify[ing] a list of essential medicines … that are medically necessary to have available at all times in an amount adequate to serve patient needs and in the appropriate dosage forms" was assigned to the drug regulator, the Food and Drug Administration (FDA; US FDA, 2023). The US EML of over 200 medicines primarily targets acute care medical facilities specialising in urgent medical conditions and short-term treatment and it also lists some medicines for wider use in the community such as pain relief medicines and antibiotics. In addition to the identification of priority medicines, the FDA has been also directed to monitor supply chains and coordinate directly with other partners to minimise the risk of shortages by developing strategies for purchasing and accelerating local manufacture (US FDA, 2023).

Similarly, in 2023 the European Medicine Agency (EMA) published its first list of critical medicines and the European medicines regulatory network actively monitors availability of the listed medicines and works closely with manufacturers and suppliers to avoid medicines shortages (EMA, 2026a). The 2026 EU list of critical medicines contains 299 generic and novel medicines in a wide range of therapeutic areas including vaccines and medicines for rare diseases.

Since the pandemic, better-resourced regulatory authorities have thus worked closely with manufacturers of priority medicines to ensure a reliable supply. This highlights the importance of considering priority medicines list at the regulatory level – their registration status and sufficient number of providers.

Medicines Authorisation

The responsibility for medicines regulation is assumed by a National Medicine Regulatory Authority (NMRA). Before a medicinal product can enter the country market it has to be registered or authorised for use by NMRA based on evidence for safety, efficacy and quality.

There are two things to note. First, in most countries the regulation of medicines and prioritisation of medicines is undertaken by different divisions within the health ministries and even within the WHO itself (see textbox). Second and more crucially, the functions and mandates of many regulatory authorities do not prioritise essential medicines.

The approval requirements were introduced to address problems with adulterated drugs, i.e. quality issues (Britten, 2008). The first regulations related to safety and efficacy were instituted by Norway and Sweden in 1920s and 1930s (Hobaek and Lie, 2019). The US introduced safety standards for pharmaceuticals after sulfanilamide elixir resulted in 107 deaths in the US in 1937.

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The FDA subsequently required a proof of efficacy in addition to safety when thalidomide was shown to be toxic for foetuses leading to deformities in more than 10,000 babies worldwide in the early 1960s (Braithwaite and Drahos, 2000; Britten, 2008). Subsequently the European Community and many other countries followed suit and introduced drug regulation (Braithwaite and Drahos, 2000).

However, even before the introduction of formal regulatory requirements, health authorities paying for prescription medicines were concerned about exaggerated claims of efficacy made by pharmaceutical companies about their products. In 1929, the UK government appointed a committee to categorise 165 medicines as "those which were sometimes drugs, those which were never drugs and those of unknown composition (the so called patent medicines)" and doctors were subsequently discouraged to prescribe products in the latter two categories (Abraham, 1995; Britten, 2008).

In contrast to the UK, in Norway an additional requirement of need was embedded into authorisation decisions since 1938 (Hobaek and Lie, 2019). The so called "need clause" was to address unnecessary and irrational medicine use and required that the medicine was "medically justified and needed" to be authorised in the country. Importantly, as there was no explicit definition of 'need' this provided the regulators space to manoeuvre. Need was interpreted as a relative therapeutic value over the existing products on the market. That is, the product had to have a comparative advantage such as a better safety profile or a lower price. This allowed the Norwegian authority to limit the number of medicinal products available in the country, reduce costs of distribution and storage, and simplify prescribing. The need clause also allowed the regulator to consider the risk of antimicrobial resistance when assessing new antibiotics and their combinations, keeping the number of approved antibiotics and resistance levels low compared to other countries (Hobaek and Lie, 2019). Although the need clause was abolished in 1996 when Norway harmonised its regulations with the EU, its list of authorised products remains smaller than those of other European countries.

National Drug Registers

Once authorised, medicinal products are listed in a National Drug Register (NDR), which comprises thousands of products – different medicines and their formulations brought to the market by different producers. The Norwegian drug register lists about 12,000 products, while there are more than 14,000 products in the UK and over 100,000 in Germany (Federal Institute for Drugs and Medical Devices, 2026; House of Lords, 2026; The Norwegian Medical Products Agency, 2026).

Medicines regulatory authorities do not proactively solicit or select which products to consider for registration in the given country. Instead, manufacturers submit applications to NMRAs to be able to market and sell their products, guided by business objectives. As a result, NMRAs may be overwhelmed by marketing applications for products that 'move in the market' and are profitable rather than priority medicines. Low profitability is one of the key reasons for shortages, and non-availability. Even in the US where the FDA reported over 20,000 prescription medicinal products and over 650 biological products registered in the country (US FDA, 2020) between 2018 and 2023 almost 2000 prescription drug products were in short supply, of which 29% were essential medicines (McGeeney *et al.*, 2025).

LMICs typically have shorter lists of registered products than high income countries. For instance, in 2018 NDRs of Kenya listed about 6000 products and Tanzania and Uganda listed less than 4000 products (Green *et al.*, 2023). Yet, regulatory activities related to the registration of pharmaceutical products, licensing of manufacturers, distributors, and retailers, as well as the overall oversight of pharmaceuticals circulating in the market may be overwhelming. Long approval times, delayed access to new medicines, and availability of substandard, falsified and unapproved products have been reported (see e.g (Broojerdi *et al.*, 2020; Roth *et al.*, 2018)).

Many NMRAs in LMICs have limited staff numbers, which are often compounded by inadequate technical expertise and high turnover rates (Gwaza *et al.*, 2024). The authorities are underfunded and working within inadequate structures and legal frameworks (Briggs *et al.*, 2021; Broojerdi *et al.*, 2020). The WHO is currently replacing all previous tools with a Global Benchmarking Tool (WHO, 2026b) to assess the strengths of regulatory systems.

The Nairobi Conference in 1985 for rational medicines use advocated limiting registration to essential medicines to ensure efficient use of regulatory resources. In practice this has never been implemented.

Instead, the WHO has developed various mechanisms and programmes to strengthen medicine regulatory systems. Some of these target medicine regulatory capacities and functions in general, others focus specifically on essential medicines.

WHO Mechanisms to Improve Registration of Essential Medicines

The WHO provides bilateral and multilateral technical support to Member States through guideline development and training. The Good Regulatory Practice guidelines recommend LMICs use regulatory work and decisions made by well-resourced and trusted NMRAs (WHO, 2021).

WHO – key departments focusing on essential medicines and registration of medicines

Within the World Health Organization (WHO), oversight of access to essential medicines and medicines registration is primarily managed by two specialized departments under the Access to Medicines and Health Products Division:

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- The department of Medicines and health products policies and standards "provides authoritative guidance and standards on quality, safety and efficacy of health products and supports countries to formulate evidence-based policies and ensure good practice throughout the value chain" (WHO, 2026g). The department hosts the Expert Committee that updates the WHO Model List of Essential Medicines.
- The department of Regulation and Prequalification supports Member States in building robust, resilient and reliable regulatory systems and ensures that quality-assured health products are available to populations in need. The focus is on "capacity building, promoting regulatory convergence and harmonization" (WHO, 2026g).
  - **Regulatory Systems Strengthening:** The WHO's Regulation and Safety Team develops global standards, guidelines, and frameworks to help national governments build their own robust, evidence-based policies.
  - **Marketing Authorisation:** The WHO does not issue marketing authorisations; that function belongs to national medicine regulatory authorities. However, WHO's Regulation and Prequalification department sets global regulatory standards, drives the global benchmarking of national regulators, and facilitates collaborative registration procedures across Member States.
  - **Prequalification Unit:** WHO's Prequalification Programme assesses the quality, safety, and efficacy of medicines, vaccines, and diagnostics. This primarily serves as a centralised evaluation for UN agencies and developing countries to purchase bulk medications.
  - **Collaborative Registration:** The WHO established a Collaborative Registration Procedure (CPR) to facilitate country-level marketing authorisations by relying on prior rigorous assessments conducted by trusted authorities.
  - **Global and Regional Harmonization Initiative:** The WHO supports harmonisation of technical requirements for medicines regulation and encourages cooperation between medicine regulatory authorities.

WHO Prequalification of medicines – focus on essential medicines

In 2001, the WHO Prequalification Programme (PQP) was expanded to cover prequalification of medicinal products procured by the UN and other international agencies for distribution in resource-limited settings (WHO, 2026c). Its key purpose is to facilitate access to essential medicines that meet acceptable international standards of quality, safety and efficacy. Manufacturers of finished product and active pharmaceutical ingredient are inspected to ensure their compliance with good manufacturing practices (GMP). Through dossier assessment and inspection of clinical trial sites and laboratories, WHO PQP also enforces compliance with good clinical and laboratory practices (GCP and GLP). The inspectors from WHO-Listed Authorities (previously known as stringent drug regulatory authorities, e.g. European Union, Canada, and Switzerland) work with NMRAs in LMICs where the medicines will be used.

A drug must either be on the WHO Model List or be recommended for use by a current WHO treatment guidelines. Both the drug and the manufacturing site must be prequalified. Once established on the prequalified list, the drug is considered eligible for procurement.

From its inception the prequalification of medicinal products focused on ARV, anti-TB and malaria treatments, later expanded to include also essential medicines for reproductive health, neglected tropical diseases, childhood diarrhoea and influenza, and more recently oncology, Hepatitis B and C, and COVID-19 medicines. As of June 2026, 665 medicinal products for 133 essential medicines (in 264 different formulations) were prequalified by the WHO in addition to active pharmaceutical ingredients and vaccines (51 HIV/AIDS medicines, including antibiotics and other medicines to treat opportunistic infections, 25 TB medicines, 15 reproductive health medicines, 9 malaria medicines, and 9 medicine for neglected tropical diseases (WHO, 2026d).

To further the collaboration between WHO and NMRAs in low-income countries, a **Collaborative Registration Procedure (CRP)** was introduced in 2013. This procedure allows the participating NMRAs to take advantage of assessments completed through the WHO PQP and accelerate the registration of prequalified medicines at national level. As of 2026 there were 70 participating NMRAs and the WHO records showed 1096 product registrations of 78 essential medicines across 36 countries. The overwhelming majority of countries using this procedure (25/36) were in the WHO AFRO region (WHO, 2026e).

In 2015, **WHO Collaborative Registration Procedure of Finished Pharmaceutical Products assessed and approved by Stringent Regulatory Authorities** was piloted. The focus is on small molecules, biologicals, generics, biosimilars, and vaccines addressing public health needs, even if not in the scope of WHO PQP (Vaz and Santos, 2022). By December 2025, 265 product registration of 38 medicines across 35 countries have been completed (WHO, 2026f).

Regional Initiatives to Strengthen Regulatory Capacities and Improve Registration

"In order to strengthen the regulatory capacity for oversight of medical products globally, WHO encourages international cooperation among regulatory authorities in all its forms, including convergence, harmonization, information- and work-sharing, reliance and recognition" (WHO, 2026h).

For instance, the East African Community (EAC), in collaboration with New Partnership for Africa's Development (NEPAD), launched the EAC Medicines Registration Harmonization (EAC MRH) project in 2012. The EAC MRH aims to harmonise technical requirements for quality assurance such as good manufacturing practice (GMP) standards and registration processes. Cooperation between participating NMRAs is expected to strengthen the local regulatory expertise and lower the workload. The

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initiative is not prioritise to essential medicines. Within the first eight years, the collaboration resulted in joint product assessment of 83 products and 15 joint GMP inspections (Mashingia *et al.*, 2020).

The registration of medicines can be facilitated through the mechanisms described above where NMRAs rely on regulatory decisions made by trusted authorities. However, despite the increasing numbers of registrations through CRPs, many countries have not yet adapted their legislation to recognise the regulatory decisions of other regulatory authorities (Briggs *et al.*, 2021). Apart from the WHO prequalification of medicines which is limited to essential medicines, the extent to which these mechanisms improve access to essential medicines is not known (to our knowledge).

In addition, some NMRAs in low- and middle-income countries prioritise selected products and fast track their assessment and registration such as antimalarials, antiretrovirals and anti-TB medicines in Ethiopia. The eligible products are, however, defined by therapeutic class rather than their listing in the NEML, which may be a problem as we explain in the next section.

Is it Working? Empirical Evidence on Alignment: Registration of Essential Medicines

The separation of responsibilities for market registration and essential medicines is exemplified by the relative paucity of historical research comparing those medicines authorised for use with those on the EML at country level. However, recent research has exposed critical gaps in the registration of essential medicines in LMICs as well as HICs, over-registration of non-EML medicines.

An audit comparing the medicines authorised on national drug registers with those on the EMLs in Kenya, Tanzania and Uganda found that 28% (175/632), 50% (400/797) and 40% (266/663) of essential medicines had no registered products in 2018, respectively (Green *et al.*, 2023). For instance, a formulation of the essential anaesthetic halothane was registered in Tanzania but not Kenya or Uganda and there were no registered products corresponding to the essential anaesthetic gas isoflurane in any of these countries. Further, oral rehydration salts were registered in Uganda, but not Kenya or Tanzania. Therapeutic classes such as anti-Parkinsonism medicines, antidotes and other substances used in poisoning were particularly affected by a lack of registered products across the three countries (Green *et al.*, 2023). The audit also showed that a significant proportion of those registered had only one or two registered products; 38% in Kenya, 45% in Tanzania and 36% in Uganda. This is below the WHO recommended threshold of three products to ensure reliable supply of medicines.

A document analysis of the 2018 EML and registration status of medicines in Pakistan (Rafi *et al.*, 2021) showed that 26% (179/690) of essential medicines were not registered at country level. Here too, anti-Parkinsonism medicines (100%, 2/2) and antidotes and other substances used in poisoning (60%, 6/10) were missing registered products.

While 80% (386/481) of essential medicines were registered in Namibia in 2024, only 45% of these (176/386) had at least three different products available (Aluvilu *et al.*, 2026). In contrast, for priority cancer medicines for children a full alignment between NEML and medicines registration was found in South Africa (Joosse *et al.*, 2023).

For countries like the Czech Republic and Hungary, which do not have NEMLs, researchers examined registration of medicines listed in the WHO Model List and found important gaps in registration of essential medicines (Arete-Zoe, 2017a, 2017b).

At the same time, national medicines authorities have authorised an excess of non-EML medicinal products for the local market, potentially facilitating inappropriate drug use and antimicrobial resistance (Green *et al.*, 2023; Lyus *et al.*, 2020). In Namibia, less than a quarter of registered products (1288/5444) corresponded to essential medicines (Aluvilu *et al.*, 2026).

In Kenya, Tanzania and Uganda, 21% (33/160), 29% (52/182) and 27% (50/187) of antimicrobials listed on national EMLs, respectively, had no registered products, while 64% (1353/2105), 53% (706/1327) and 51% (798/1563) of the antimicrobials that were registered were not essential (Lyus *et al.*, 2020). For example, a fixed-dose combination of ampicillin and cloxacillin is specifically not recommended by WHO because it "is not evidence-based, nor recommended in high-quality international guidelines" (WHO, 2024). Although this combination was not included in the national EML for Kenya or Uganda, more than twenty versions of this medicine were on their national drug registers. Diclofenac was not included in Kenya's EML, but 85 versions were registered in the country (Green *et al.*, 2023).

Instrumentalising Need Through new Routes to Marketing Authorisations

Governments and regulatory authorities under pressure from pharma to speed the authorisation process have introduced and instrumentalised the concept of need into the area of market registration and also Health Technology Assessments (HTA). Several legislative initiatives provide incentives for industry to produce new innovative medicines.

Orphan drug regulations in the US and EU were introduced to promote R&D into conditions that are rare, severe, and with no satisfactory diagnosis, prevention, or treatment (Commision Regulation, 2000; Orphan Drug, 1983). Paediatric drug regulation was also introduced by the EU in 2007, and aims to ensure that medicines for children are appropriately researched, tested, and authorised and that information on the use of medicines in children is available (Regulation EC, 2007). Fast-track or accelerated approval routes have been designed to allow some medicines to be expedited if they provide noticeable clinical advances compared to existing treatments or meet unmet public health need (Food and Drug Administration, 2026). For example, FDA has four programmes to expedite new drugs that address unmet medical need in treating serious conditions (Food and Drug

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Administration, 2026). The EMA introduced expedited pathways such as accelerated assessment, conditional marketing approval and iterative adaptive pathways (EMA, 2026b, 2026c).

However, there are concerns that innovative means anything that is new rather than new treatments providing significant advances over existing ones. The extent to which these approaches to prioritisation at the regulatory level meet public health need is not only uncertain, but there is a growing critique of potential misuse of orphan designation in the US and EU to increase market share while true rare diseases remain neglected and as a route to faster access with fewer regulatory requirements (Natsis, 2017; U.S. Government Accountability Office, 2018). In the US, the share of orphan drug approvals as a percentage of all market approvals increased from 5 to 21% between 2005 and 2016 (U.S. Government Accountability Office, 2017). In the EU, the share increased from 2.6 to 13.5% between 2010 and 2022 (Bouwman *et al.*, 2024).

The number of products with expedited development and/or review has been also increasing. In Canada, 30% of the 623 new active substances that Health Canada (national Ministry of Health) reviewed between 1995 and 2016 went through at least one of two expedited review pathways (Lexchin, 2018). In the US, the increasing trend of expedited review programmes has been "driven by drugs that are not first in class and thus potentially less innovative" (Kesselheim *et al.*, 2015) and reflected in a higher number of adverse events caused by products that underwent faster regulatory assessment by the FDA (Chary and Pandian, 2017).

Lack of health benefits has been highlighted for the majority of cancer drug indications granted accelerated approval (Gyawali *et al.*, 2019) and novel drugs indications approved by the FDA on the basis of limited evidence (Pease *et al.*, 2017). Similarly, only 25% of 216 new (non-orphan) drugs approved between 2011 and 2017 by the EMA had a considerable or major benefit, while 58% of new drugs had no added benefit over standard care (Wieseler *et al.*, 2019).

Thus, many of these incentives are linked to registration and faster approval and protection of patents rather than patients!

Many 'innovative' medicines are authorised on the basis of low prevalence and high-severity medical need because it enables the companies to charge very high prices; subsequently the range of indications and population groups may be expanded further skewing health care budgets (Vallano and Pontes, 2024). Research has show these medicines exceed affordability and value for money thresholds and are not justified by research and development costs. Rather, prices of medicines reflect manufacturers use of their market power to maximise profits and the distortions of innovation incentives (Morgan *et al.*, 2020).

The Health Technology Assessment (HTA) Hurdle

Expedited approvals based on incomplete safety and efficacy data complicate reimbursement decisions at country level. High income countries adopt HTA as a means of prioritising medicines for reimbursement within health systems and there has been push for LMICs to do the same, despite the unfinished 'access to essential medicines' agenda (Brhlikova *et al.*, 2023).

HTA is a highly technocratic process which invariably involves incorporation of medicines rather than selection adding to the burden of decision making as well as affordability down the line (see encyclopedia chapter on Economic Evaluation of Pharmaceuticals).

Conclusion: Why the Alignment is Important

Market registration is vital to ensure the quality and safety and efficacy before a product is allowed to enter the market. The essential medicines concept has made a vital contribution to public health because of its focus on priority heath care needs and access and affordability.

It is noteworthy that in most countries the regulation of medicines and prioritisation of medicines is undertaken by different divisions within the health ministries and even within the WHO itself. Crucially, the essential medicines concept while rooted in the law of many countries is often not carried through to the functions and mandate of the drug authority and EML is not integrated into the work of the regulatory authority.

Research has highlighted the gap between the essential medicines concept (medicines for priority needs) and market registration. Many essential medicines are not registered and not available at country level.

The concern for LICs is the huge volume of non-EML products that are being registered for use in the market, which in the absence of prescriptive treatment guidelines result in inappropriate use and iatrogenic harms. There is also evidence of the multiplicity of ways that industry is subverting priority needs for medicines for its own ends through new routes to market registration and HTA. Countries must include prioritisation of essential medicines in the functions and mandate of NMRAs thereby ensuring the linking of market authorisations to national EMLs.

In order to do so drug registers must be electronically linked to EMLs at country level and common standards developed and adopted in order to audit and monitor the availability of essential medicines products in the market and their prices. This will require resourcing. To this end, a system such as the 'medical needs clause' previously used by Norway should be developed and implemented. In this way there could be a more efficient use of regulatory resources and better controls over the entry of expensive products which are not on the EML.

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