World Health Organization

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Essential medicines

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Key facts

- **Essential medicines treat the priority healthcare needs of the population.**
- **Essential medicines should be available, affordable and of assured quality at all times.**
- **WHO publishes its Model List of Essential Medicines every 2 years to guide countries to develop and update national essential medicine lists.**
- **WHO selects essential medicines based on public health relevance, evidence of benefits and harms, and with consideration of costs, affordability and other relevant factors.**
- **Globally, over 150 countries have national essential medicines lists based on the WHO Model List.**
- **The 2023 edition of the WHO Model List includes over 500 medicines (including 361 for children).**

Overview

Essential medicines are those that effectively and safely treat the priority healthcare needs of the population. They are selected by taking into consideration public health relevance, evidence of benefits and harms, and with consideration of costs, affordability and other relevant factors.

Essential medicines should always be available within functioning health systems, in sufficient quantities to meet patient needs. They should be available in appropriate dosage forms for the intended uses and patients, be of assured quality, and be affordable for both

individuals and the health system.

While essential medicines cover a wide range of global health needs, they represent only a small proportion of the total number of medicines available globally. The use of a limited number of carefully selected medicines can lead to improved supply, better prescribing practices and lower costs.

Every 2 years since 1977, WHO has published the WHO Model List of Essential Medicines (also known as the Essential Medicines List or EML).

Impact and implementation

Over 150 countries have adopted national lists of essential medicines based on the WHO Model List. Essential medicines lists serve as a basis for procurement and supply of medicines in the public sector, reimbursement and insurance schemes, medicine donations and local medicine production *(1)*. When properly implemented, the essential medicines concept can help improve health outcomes and achieve progress towards universal health coverage. The essential medicines concept has been successfully implemented in various countries and regions. Studies have shown that essential medicines lists are associated with greater availability of essential medicines than non-essential medicines *(2)*, increased access *(3)*, better prescribing and quality of care, and cost savings *(4)*.

The essential medicines concept can be adapted to different healthcare systems, settings and income levels. By focusing on a limited number of carefully selected medicines, countries can improve supply, promote more rational prescribing practices and better control costs while ensuring access to essential medicines.

Challenges

Despite progress, challenges remain in ensuring universal access to essential medicines. Availability and affordability of essential medicines remain issues in many countries.

The high cost of new essential medicines, particularly for cancer and other noncommunicable diseases, poses challenges for health systems across all income settings.

Global Health Observatory data from 2010–2019 show that the proportion of health facilities with a core set of relevant essential medicines available and affordable on a sustainable basis in selected low- and lower-middle-income countries ranged from 8% to 41%.

Medicines account for 20–60% of health spending in developing countries, with up to 90% of the population purchasing medicines through out-of-pocket payments, making medicines the largest family expenditure item after food. This means medicines are unaffordable for large sections of the global population and a major burden on government budgets.

Antimicrobial resistance continues to threaten the effectiveness of many essential antibiotics, necessitating careful stewardship.

History

The first WHO Model List of Essential Medicines was published in 1977 and included about 200 medicines. It was seen as a major revolution in public health, highlighting that some medicines are more important than others.

In 2007, the first Model List of Essential Medicines for Children (EMLc) was published in recognition of the unique needs of children. This was a major achievement, particularly in promoting research into medicines for children and the development of child-friendly formulations.

Over the years, the Model Lists have expanded in scope and complexity, reflecting advances in medical science, and changing global health priorities.

Update process

The WHO Model List is reviewed and updated every two years following a well-established, rigorous, transparent and evidence-based process.

Requests for changes to the WHO Model List, (such as the addition of new medicines or formulations, removal of medicines or formulations, or expanding the listing of a medicine to include a new indication), are made through an open application process. Applications may be submitted by anyone, including scientific researchers, academic institutions, non-governmental organizations, patient groups or networks, pharmaceutical companies and WHO technical departments.

Applications are reviewed by the WHO Expert Committee on Selection and Use of Essential Medicines, whose responsibility it is to consider the evidence presented and make recommendations to WHO regarding the requested changes.

Members of the Expert Committee are appointed by the WHO Director-General. They are required to have strong clinical and technical expertise in medicine evaluation and clinical use. They are selected to ensure gender balance and equitable geographical

representation. Expert Committee members must disclose any circumstances that could result in a potential conflict of interest.

All applications received for consideration by the Expert Committee are published on the WHO website for public review and comment. Comments received on the applications, application reviews provided by Expert Committee members, and comments from WHO technical departments are also published on the website for full transparency.

This transparent, evidence-based process ensures that the WHO Model List remains a credible and valuable tool for guiding medicine selection and use globally.

Evolution of the WHO Model List

The WHO Model List of Essential Medicines has evolved significantly since its inception, reflecting its relevance to all countries, not just those with limited resources.

Since the first Model List in 1977, the number and scope of essential medicines included in the Model List have grown over time. Medicines requiring specialized medical care have been introduced, such as lung surfactants for newborn babies, targeted cancer treatments and medicines for multiple sclerosis. The Model List has also included more treatments for chronic and noncommunicable diseases, reflecting the changing global disease burden and aging populations.

While the cost of a medicine is a consideration in the selection process, a high absolute cost of a medicine does not necessarily prevent it from being added to the WHO Model List if it otherwise meets the required selection criteria. Since 2002, affordability has evolved from being a precondition of listing a medicine on the Model list to being a consequence. Listing a medicine on the Model List is one step in a series of actions that can lead to lower costs, better affordability and greater access.

The number of patented medicines on the Model List has increased over time from 17/319 (5%) in 2003 to 82/502 (16%) in 2023.

In 2017, in response to the growing threat of antimicrobial resistance, the WHO Model List introduced the AWaRe (Access, Watch, Reserve) classification of antibiotics. The AWaRe classification guides the empiric use of essential antibiotics for more than 30 clinical infections in community and hospital settings. It has formed the basis of broader guidance for optimal antibiotic prescribing and use, supporting antimicrobial stewardship. *(5)*.

WHO response

WHO continues to work to improve global access to essential medicines, regularly updating the WHO Model Lists of Essential Medicines and providing technical support to Member States to support them in implementing the 2014 World Health Assembly Resolution on Access to essential medicines (WHA 67.22).

Improving access and affordability of essential medicines forms an important part of WHO's broader efforts to improve access and affordability of all essential health products – including medicines, assistive technologies, in vitro diagnostics, medical devices, and vaccines – as a key strategy for supporting countries to attain the goal of universal health coverage.

To achieve this, WHO has developed a range of guidance, tools and resources to support countries in the selection and use of essential medicines and other health products. Together with other WHO activities, such as prequalification of medical products and WHO guidelines, these efforts help to ensure evidence-based guidance is available for countries to make informed decisions for their national medicines policies, and selection and use of medicines for national essential medicines lists.

References

1. **Hogerzeil HV. The concept of essential medicines: lessons for rich countries. BMJ. 2004;329(7475):1169-72 (https://doi.org/10.1136/bmj.329.7475.1169).**
2. **Bazargani YT, Ewen M, de Boer A, Leufkens HG, Mantel-Teeuwisse AK. Essential medicines are more available than other medicines around the globe. PLoS One. 2014;9(2):e87576 (https://doi.org/10.1371/journal.pone.0087576).**
3. **Maiti R, Bhatia V, Padhy BM, Hota D. Essential Medicines: An Indian Perspective. Indian J Community Med. 2015;40(4):223-32 (https://doi.org/10.4103/0970-0218.164382).**
4. **Gustafsson LL, Wettermark B, Godman B, Andersen-Karlsson E, Bergman U, Hasselstrom J et al. The 'wise list'- a comprehensive concept to select, communicate, and achieve adherence to recommendations of essential drugs in ambulatory care in Stockholm. Basic Clin Pharmacol Toxicol. 2011;108(4):224-33 (https://doi.org/10.1111/j.1742-7843.2011.00682.x).**
5. **Moja L, Zanichelli V, Mertz D, Gandra S, Cappello B, Cooke GS et al. WHO's essential medicines and AWaRe: recommendations on first- and second-choice antibiotics for empiric treatment of clinical infections. Clin Microbiol Infect. 2024;30 Suppl 2:S1-s51 (https://doi.org/10.1016/j.cmi.2024.02.003).**