

WHO Essential Medicines and Health Products  
**Annual Report 2015**





# FOREWORD

## BY FORMER DIRECTOR



2015 is the year that ushered in the Sustainable Development Goals (SDGs), a broad and ambitious agenda intended to promote sustainability and equity across a broad spectrum of development targets by 2030. While many challenges lie on the path to 2030, the Essential Medicines and Health Products (EMP) Department stands in good stead because its horizontal, system-building approach and the needs-based orientation of its policy work are already aligned with the intent of the SDGs to promote lasting improvements for all populations.

Member States are increasingly seeking WHO's support and guidance to select, regulate, import, manufacture and wisely use quality essential medicines and health products to ensure universal access. As prices of new health commodities soar and trade becomes more globalised, health systems are facing increasing pressure to provide equitable, affordable access to quality healthcare; but they cannot meet those demands alone.

In 2015, EMP's work spanned numerous important portfolios ranging from increased R&D for diseases of poverty, the regulation of biosimilars, access to controlled substances and antimicrobial resistance, to strengthening local production and regulating medical devices. Expert committees made landmark decisions, including the inclusion of ground breaking new cancer and hepatitis C medicines in the Essential Medicines List, and the development of new quality assurance guidelines, to name just two.

Fifteen countries in Sub-Saharan Africa continued to receive our technical assistance and financial support from the European Union (EU) to improve their pharmaceutical systems and provide better and more affordable medicines to their populations. And EMP's contribution to the Ebola research and development effort gave rise to a new emergency assessment procedure for medical products during public health emergencies and the development of the gold standard for Ebola reagents to improve testing of the disease. EMP also became active in the new R&D Blueprint for epidemic preparedness.

As health products markets become more globalised, expanding national capabilities, improving and harmonising standards for medical products and collecting reliable data become even more crucial. By virtue of EMP's numerous initiatives to strengthen regulatory oversight nationally and internationally, countries are improving their practices and becoming more effective. And the WHO surveillance and monitoring system has improved the quantity and quality of data on substandard/spurious/false-labelled/falsified/counterfeit (SSFFC) medical products, empowering regulators and other authorities to better control and minimise these public health risks.

Functioning global supply systems and availability of safe and effective medical products at fair prices depend on innovative policies, harmonised approaches, efficient oversight and international cooperation. Striving to reach this global public good must be supported and funded appropriately. While we acknowledge the valuable financial contributions from current donors, we also encourage WHO Member States to show greater support for the invaluable services EMP provides. Investing as a global community to make health systems stronger, and foster efficient, equitable health products markets is the only way to ensure that everyone everywhere has access to quality health care.

Kees De Joncheere, Director May 2012 - March 2016







# CONTENTS

## FOREWORD BY FORMER DIRECTOR

EMP	1
<b>POLICY ACCESS AND USE (PAU)</b>	
Update of essential medicines list	3
Improving access to TB medicines for children	3
Supporting Mali on the road to universal health coverage	5
Other achievements	6-7
<b>PUBLIC HEALTH, INNOVATION AND INTELLECTUAL PROPERTY (PHI)</b>	
Global Cooperation on Assistive Technology	9
Hepatitis C medicines	9
Ethiopia - Meeting national access needs with local production	11
Other achievements	12-13
<b>PREQUALIFICATION (PQT)</b>	
Stronger manufacturers	15
Much needed medicines prequalified for the first time	15
Emergency Use Assessment and Listing procedure	17
Other achievements	18-19
<b>REGULATORY SYSTEM STRENGTHENING (RSS)</b>	
Benchmarking of National Regulatory Authorities	21
Revision of indicators for benchmarking regulatory systems	21
Vietnam National Regulatory Authority Achieves Significant Goal	23
Other achievements	24-25
<b>SAFETY AND VIGILANCE (SAV)</b>	
Supporting countries to respond to safety concerns	27
Launch of VigiAccess	27
Global Surveillance and Monitoring System	29
Other achievements	30-31
<b>TECHNOLOGIES STANDARDS AND NORMS (TSN)</b>	
Good data and record management practices	33
Responding to Public Health Emergencies of International Concern	35
Facilitating vaccine delivery	35
Other top stories	36-37
<b>FINANCIAL OVERVIEW</b>	38-44





“As we transition to the Sustainable Development Goals, EMP will become an even more critical actor in promoting affordable access to essential quality health products, strengthening health systems and achieving universal health coverage.”

Marie-Paule Kieny, Assistant-Director General,  
Health Systems and Innovation, WHO

# EMP

The vision of the WHO Essential Medicines and Health Products Department (EMP) is closely aligned with SDG 3 by striving for a world where every child, man and woman can afford and has access to the quality medicines and health products they need to lead a healthy and productive life.

Built on three main pillars – access, innovation and regulation – EMP offers guidance, technical support and capacity building to promote access to quality treatment at affordable costs, while also incentivizing innovation and the development of vaccines, medicines and technologies based on public health needs. In addition, the department develops international standards for the manufacturing and regulation of medical products and contributes to the harmonization of these to ensure their quality and facilitate their availability on globalized markets. EMP’s work brings benefits to Member States, to international agencies involved in the purchase and supply of health products and to manufacturers.



# PAU | POLICY ACCESS AND USE

## INCREASING ACCESS THROUGH THE RIGHT POLICIES AND PRACTICES

PAU supports countries to formulate evidence-based policies and ensure good practice and good governance throughout the medical supply chain from selecting the right products to using them responsibly. In addition, PAU runs the Expert Committee on Drug Dependence, which examines psychoactive substances from a public health perspective and advises the UN Commission on Narcotic Drugs which substances should be listed under international control.





## HIGHLIGHTS

### UPDATE OF ESSENTIAL MEDICINES LIST

2015 confirmed a significant recent trend in the flagship WHO Model List of Essential Medicines with groundbreaking new treatments for hepatitis C and a variety of cancers included in the list despite their high prices. The list also included five new medicines for multi-drug resistant tuberculosis (TB), among other updates. Traditionally considered a tool for developing countries to use as a guide for national medicines selection, the WHO Essential Medicines List is increasingly seen as a tool to increase access globally.

[i Selection of essential medicines](#)

### IMPROVING ACCESS TO TB MEDICINES FOR CHILDREN

Tuberculosis (TB) kills 400 children a day around the world, largely because of low access to appropriate treatment. PAU and the Global TB Programme have been working together with partners to ensure the uptake of new, quality-assured fixed-dose combinations of TB medications in high-burden countries.

[i TB fixed dose combinations \(FDCs\) for the treatment of TB in children](#)

[i Guidance for national tuberculosis programmes on the management of tuberculosis in children](#)

**“When new effective medicines emerge to safely treat serious and widespread diseases, it is vital to ensure that everyone who needs them can obtain them. Placing them on the WHO Essential Medicines List is a first step in that direction.”**

WHO Director-General, Margaret Chan

# PHARMACIE



# TOP STORY

## SUPPORTING MALI ON THE ROAD TO UNIVERSAL HEALTH COVERAGE

Despite numerous health challenges, Mali has made steady progress in increasing access to essential medicines in recent years, largely thanks to efforts made by the Government and by WHO through the EU/ACP/WHO Renewed Partnership to strengthen pharmaceutical systems. The Renewed Partnership has been active in 15 African countries since 2012.

**“To achieve a stronger health system we need high-quality medicines for all.”**

Dr. Bakary Diarra, Secretary General  
of the Ministry of Health and Public  
Hygiene, Mali

The national medicines policy of Mali focuses on rational prescribing and the distribution and use of essential generic medicines. Medicines prices are fixed in the public and private sectors, and taxes have been reduced over the past decade.

Despite the strong institutional framework and the widespread presence of medicines in health facilities, Mali faces several challenges in access to quality medicines. These are mainly due to lack of resources in the sector, in a context of widespread poverty and years of political instability. As a consequence, the pharmaceutical system suffers from a shortage of skilled professionals, weakened infrastructure and a lack of management and logistics tools. The public health insurance fund currently only covers a small part of the population, forcing most patients to pay for medicines ‘out-of-pocket’. In addition, the strong presence throughout the territory of private wholesalers, some of which are not approved by the national regulatory authority, has favoured a parallel market, which, in turn, has spawned the spread of substandard and counterfeit drugs.

**“Mali has an extremely coherent policy on health and social development. The health care system is well organized, with the participation of civil society.”**

Dr Lucien Manga,  
WHO Representative in Mali

*“All the drugs on the market are not good because there is an illicit market ... Sometimes there are even toxic products ... We need more resources to manage this situation. ”*

*Dr Yaya Coulibaly, CEO, Direction de la Pharmacie du Mali*

*“Before there were no drugs, and people did not come to the health facilities. Now that we have the medicines we must ensure that they remain available and are of good quality. The population’s confidence in the health system is based on that - they do not come for prevention or advice, they come to be treated. ”*

*Dr Minkaila Maiga, Medicines Adviser, WHO, Mali*

Given these challenges, the Renewed Partnership has successfully focused on strengthening pharmaceutical and technical staff capacity at many levels and in many areas of the system, improving prescribing practices, distribution and quality control and by actions to lower drug prices. The partnership has also focused on the selection of medicines through the biennial review of the list of essential medicines, with a reinforced segment for paediatric treatments.

For the people of Mali, universal access to quality, safe and effective medicines is a critical priority. That goal will only be reached with a strengthened and harmonised pharmaceutical system.



# OTHER ACHIEVEMENTS

1

PAU stepped up its work on rational use of medicines in 2015 by assisting countries to build systems to **measure and monitor antibiotic use to address the global rise of antimicrobial resistance**.

[i Surveillance of Antimicrobial Use](#)

2

In 2015, following recommendations from the **Expert Committee on Drug Dependence**, **six new psychoactive substances** were placed under international control by the UN Commission on Narcotic Drugs, due to potential harm they can cause.

[i WHO Expert Committee on Drug Dependence](#)

3

The **Medicines Transparency Alliance (MeTA)**, a global collaboration between DfID, HAI and WHO, began as a pilot in 2008 and was finalized in 2015. The initiative was implemented in seven countries: Ghana, Jordan, Kyrgyzstan, the Philippines, Peru, Uganda and Zambia and contributed to improving access to medicines by making information transparent and bringing key stakeholders together.

[i Good Governance for Medicines \(GGM\)](#)

[i MeTA Initiative](#)

4

PAU has supported low- and middle-income countries to expand their use of the **Health Technology Assessment** tool, a method already adopted in many high-income countries to help select pharmaceuticals, clinical procedures and medical devices for reimbursement, budgeting, and insurance programmes.

[i Health technology assessment](#)

5

Work began on **strengthening supply chains to avoid stock-outs of medicines**, a problem described in high-, middle- and low-income countries increasingly related to shortages at the manufacturing level.

[i Medicines supply](#)





6

2015 saw the development and publication of several lists and specifications for use by health professionals. These included:

- **A list of medical devices** and their technical specifications in response to the West African Ebola outbreak;
- The **first list of priority medical devices for cancer care** to support countries in the implementation of the Action Plan for Noncommunicable Diseases;
- **Technical specifications for basic high priority medical equipment for reproductive, maternal and newborn, and child care;**

[i WHO list of medical devices for Ebola care](#)

[i Essential Medicines and Health Products Information Portal](#)

[i Guidelines on basic newborn resuscitation](#)

7

**Country situation analyses for local production and technology transfer of medical devices** based on a global survey on access to medical devices. Local production and technology transfer workshops were held for Member States and national action plans developed;

[i Medical devices](#)

8

Compilation and dissemination of the 2015 edition of the **Innovative and appropriate technologies for low-resource settings** compendium containing 126 technologies developed in 36 Member States.

[i WHO compendium of innovative health technologies](#)

# PHI | PUBLIC HEALTH, INNOVATION AND INTELLECTUAL PROPERTY

The goal of PHI is to improve access to health technologies by promoting appropriate innovation, manufacturing, transfer of technology and management of intellectual property. The team works in the context of Universal Health Coverage, the Global Strategy and Plan of Action on Public Health, Innovation and Intellectual Property and the Global Action Plan for Influenza Vaccines. In addition, PHI is the knowledge centre for health-related intellectual property and assistive health technology.



## HIGHLIGHTS

### GATE (GLOBAL COOPERATION ON ASSISTIVE TECHNOLOGY)

WHO's Global Cooperation on Assistive Technology (GATE) was established to help countries realize their obligation under the UN Convention on the Rights of Persons with Disabilities to increase access to assistive technology. The initiative has begun to make significant strides toward this goal by developing a Model List of Priority Assistive Products (APL) to support Member States to plan policies and programmes related to the provision of assistive products. The list identifies the 50 priority assistive products that every country should make available at an affordable cost for its citizens.

[i Launch of the first WHO Priority Assistive Products List](#)

[i Convention on the Rights of Persons with Disabilities](#)

[i Priority Assistive Products List \(APL\)](#)

### HEPATITIS C MEDICINES

Access to new medicines for treatment of hepatitis C, highly priced even for wealthy economies, is greatly impacted by patent status. In 2015, WHO provided an analysis of the patent situation of seven key products for the treatment of hepatitis C, including new and highly effective medicines such as sofosbuvir and ledipasvir. The update and clarity on the patents for these medicines allows countries to identify ways to increase access and affordability of new medicines.









## TOP STORY

### ETHIOPIA – MEETING NATIONAL ACCESS NEEDS WITH LOCAL PRODUCTION

The Democratic Republic of Ethiopia, on 14 July 2015, launched an ambitious 10-year national strategy and plan of action to develop local pharmaceutical manufacturing capacity in order to increase access to locally manufactured, quality-assured medicines.

The strategy, developed by the Ministries of Health and Trade in collaboration with WHO, provides a long-term vision and a plan for the pharmaceutical industry that combines the objectives of industrial development and health policies; that way, the sector can develop, the economy can grow and people can access quality-assured affordable medicines.

Ethiopia's increased investments in expanding effective health coverage – grown to 95 % in 2013-14 – have already improved health indicators in the population, reducing child mortality and HIV/AIDS, malaria and tuberculosis, and have resulted in growing demand for health commodities. At the same time, better performance in industrial and economic policies has spurred foreign and local investments in the pharmaceutical sector.

[i Plan of action for pharmaceutical manufacturing development in Ethiopia](#)

#### Related publications

- [Cuban experience with local production of medicines, technology transfer and improving access to health](#)
- [Improving access to safe blood products through local production and technology transfer in blood establishments](#)
- [The role of intellectual property in local production in developing countries](#)

# OTHER ACHIEVEMENTS

1

The **Consultative Expert Working Group on Research and Development: Financing and Coordination (CEWG)** is mandated to examine current financing and coordination of research and development, as well as proposals for new and innovative sources of financing to stimulate research and development related to the needs of developing countries. In 2015, PHI facilitated the implementation of selected health research and development demonstration projects in collaboration with the WHO Special Programme for Research and Training in Tropical Diseases (TDR), and supported the establishment of a Global Health R&D Observatory. It is important to note that the World Health Assembly endorsed actions suffer from under-funding making progress slow.

[i CEWG: Financing and Coordination](#)

2

In March 2015, WHO EMP and the University of Utrecht's Centre of Excellence for Affordable Biotherapeutics for Public Health signed a memorandum of understanding to **make affordable biotherapeutic medicines available to low- and middle-income countries.**

[i Affordable medicines in developing countries](#)

3

The WHO Global Action Plan (GAP) for Influenza Vaccines continued to **support developing country vaccine manufacturers in establishing sustainable influenza vaccine production capacity.** In 2015, GAP supported clinical trials of candidate influenza vaccines produced in Russia, Viet Nam, Thailand and Serbia.

[i Increase in vaccine production capacity](#)

4

The African Vaccine Manufacturing Initiative (AVMI) was formally established and with support from WHO EMP and UNIDO commissioned the development of **a business plan for vaccine production in Africa.** The first part of this business plan – the needs assessment – has been completed and was presented to the African Union and Ministerial Conference on Immunization in Africa in early 2016.

5

Consultation on the **development of open/semi open point-of-care diagnostic platforms for low- and middle-income countries**. These diagnostic platforms will allow better identification of the causes of diseases and contribute to reducing the inappropriate use of antibiotics. This consultation has been followed up with the creation of working groups to develop interoperability standards and new business models as first steps for the creation of open/semi open point-of-care diagnostic platforms.

[i Global Consultation on Diagnostics Interoperability Standards](#)

6

In September 2015, a meeting of experts on **biomarkers to discriminate bacterial from other infectious causes of acute fever** was organized in collaboration with partners. A number of next steps were decided including the development of a Target Product Profile (TPP) to guide the development of tests for bacterial vs viral infection differentiation.

[i Biomarkers to Discriminate Bacterial From Other Infectious Causes of Acute Fever](#)

7

**R&D Blueprint** - In 2015, WHO spearheaded a global movement to avert full-blown epidemics by making research and development outbreak-ready. The R&D Blueprint for Action to Prevent Epidemics will increase R&D preparedness so that countries and partners can act together according to a coordinated plan to accelerate the development of vaccines, drugs, diagnostics and delivery systems needed to short-circuit emerging health threats. PHI is contributing to the Blueprint with specific work on evaluation and motoring and on funding models for R&D preparedness and response.

[i R&D Blueprint website](#)

8

**WHO/DNDi Global Antibiotic Research and Development Facility (GARD)** - The WHO Global Action Plan on Antimicrobial Resistance (GAP-AMR) calls for the creation of new partnerships to foster the development of novel antibiotics. To implement this part of the GAP-AMR we have facilitated a WHO-DNDi collaborative initiative to establish an independent product development partnership. The partnership, incubated in DNDi, will aim to develop new antibiotic treatments and promote their responsible use for optimal conservation, while ensuring equitable access for all in need. DNDi will start the incubation phase in 2016.

[i Fostering the development and rational use of new antibiotics](#)



# PQT | PRE QUALIFICA TION

## ASSURING QUALITY AND COST-EFFECTIVENESS

Every year, billions of US dollars' worth of medicines and other health products are purchased by international procurement agencies for distribution in resource-limited countries. The WHO Prequalification Programme (PQ) works to ensure these agencies have the choice of a wide range of quality products for bulk purchase at significantly reduced costs. In close cooperation with national regulatory agencies and partner organizations, WHO's PQ assesses priority medicines, vaccines and in vitro diagnostics and contributes to strengthened national capacity for sustainable manufacturing and monitoring of quality through hands-on training.

**“WHO gets the prices of commodities down, helping countries and donors get more from their investments.”**

Margaret Chan, WHO Director-General





## HIGHLIGHTS

### STRONGER MANUFACTURERS

Over the past two years, WHO has provided significant capacity building, technical assistance and new guidelines, contributing to a solid increase in overall capacity for and compliance to international standards. This shift has seen a greater number and diversity of manufacturers achieving prequalification and entering international procurement. 2015 saw a sharp rise in the number of in vitro diagnostics, medicines and vaccines manufacturers in emerging economies achieving compliance and making it to WHO prequalification.

### MUCH NEEDED MEDICINES PREQUALIFIED FOR THE FIRST TIME

The prequalification of praziquantel in 2015 represented **the second medicine to be prequalified for a neglected tropical disease and was an important first for schistosomiasis**, also known as snail fever. The disease affects over 240 million people worldwide, and is particularly prevalent in sub-Saharan Africa, where it is a disease of poverty leading to chronic ill-health.

[i Schistosomiasis](#)

The PQ team also **prequalified the first oxytocin product to treat postpartum haemorrhage** – the cause of 27.1% of the estimated 287 000 maternal deaths worldwide each year, half of which occur in sub-Saharan Africa.

The **first applications for a hepatitis C virus medicine (sofosbuvir) were submitted over the course of 2015**. These medicines were included in the WHO Model List of Essential Medicines to address the global epidemic of hepatitis C, with approximately 150 million people estimated to be infected and 500 000 deaths annually. Over 80% of those affected by the disease live in low- and middle-income countries, particularly in central, north and West Africa.







## TOP STORY

### GETTING NEW QUALITY PRODUCTS TO COMMUNITIES DURING EMERGENCIES – THE EMERGENCY USE ASSESSMENT AND LISTING PROCEDURE

No proven medical products existed to address Ebola during the West Africa crisis, resulting in more deaths and illness. When WHO and international partners began to fast-track research and development for potential Ebola diagnostics, treatments and vaccines, no guidance was available on how to test candidate products in an emergency situation, or how to regulate them. To address this gap, WHO's PQ team designed a set of procedures to evaluate the three product categories for acceptable performance, quality and safety, in order to accelerate availability and use of these tools during the epidemic.

This group of procedures was named the Emergency Use Assessment and Listing procedure (EUAL), and has already been applied to Ebola diagnostics and vaccines. The EUAL procedure went through extensive consultation with affected countries, international partners and stringent regulatory authorities, and is the first such procedure at the global level. The EUAL developed for the Ebola emergency can be applied to all public health emergencies of international concern in the future.

[i EUAL for Candidate Vaccines for Use in the Context of a Public Health Emergency](#)



# OTHER ACHIEVEMENTS

1

**Shorter timelines for prequalification** - WHO 'time to prequalification' for pharmaceutical products continued to improve and is now consistently low at around 200 days - well below the international target of 270 days. Along with the increased number of prequalified products, comes a rise in the number of applications for variations. The PQ team also consistently reviews variations within targeted timelines. This responsiveness ensures a greater number of priority health products are available to patients in a shorter time.

2

**Laboratories monitoring each other** - Collaborating 'Quality Control Laboratories' that are preparing for WHO prequalification are now volunteering to be audited by their peer laboratories. This collegiate approach was developed and promoted by WHO to encourage knowledge-sharing, harmonization of methodologies and relationship building between laboratories. It also promotes sustainability as laboratories agree to a plan of achievable corrective actions in a collaborative, constructive and open way.

3

**True regulatory collaboration in southern Africa** - Catalytic support from WHO's PQ Programme has led to functional sharing of regulatory work among the southern African countries of Zambia, Zimbabwe, Botswana and Namibia. The Southern African Development Community began to officially recognize this "ZaZiBoNa" collaboration as a technically sound regulatory group, and as a vibrant example of regulatory cooperation in sub-Saharan Africa. It has led to these four countries (with more soon to join) harmonizing practices and approaches, sharing workloads, trusting one another's capacities towards accelerated registration, and organizing and financing their own sub-regional coordination and cooperation meetings. ZaZiBoNa represents a 'home grown' regulatory cooperative that is faster, cheaper, more effective and more sustainable than comparable regulatory bodies in the region.

A woman wearing a yellow hijab and glasses is looking at a document. She is wearing a white shirt and a gold watch. The background is a blurred office setting.

4

**Seasonal influenza vaccine** - A joint review of seasonal influenza vaccine took place in Thailand between WHO and Southeast Asian national medicines regulatory authorities (NRAs). The group also conducted a mock review of an Influenza vaccine application, with the end goal being to accelerate national registration of WHO prequalified pharmaceutical products and vaccines. Participants rounded up the meeting by preparing a joint plan to support the implementation of the revised procedure in participating NRAs.

5

**Smallpox and influenza preparedness** - In response to biological threats, PQ worked towards assessing and assuring the quality of the smallpox vaccine stockpile (both current and pledged), in case of a major outbreak or biological terrorist attack. Many of these smallpox vaccines were produced well before official eradication was announced in 1980. During consultations in 2015 with the Global Health Security Institute and key Member States, WHO agreed to develop criteria and approaches to test and maintain the current and pledged stockpiles, and to deploy the vaccine to countries should the need arise.

# RSS | REGULATORY SYSTEM STRENGTHENING

## BUILDING CAPACITIES TO SAFEGUARD PUBLIC HEALTH

National regulatory authorities (NRAs) play a vital role in the health care system by assuring the quality, safety and efficacy of all medical products. The Regulatory System Strengthening (RSS) team helps NRAs fulfil their mandate through a variety of approaches, including assessments of regulatory functions, direct technical assistance based on countries' plans and development of regulatory guidelines, tools and evaluation aids. In addition, RSS facilitates harmonisation of standards and best practices through the creation of regional and global regulatory networks.

**i** Strengthening regulatory systems





## HIGHLIGHTS

### **BENCHMARKING OF NATIONAL REGULATORY AUTHORITIES (NRAS)**

Regulatory systems strengthening in Member States requires an understanding of the maturity of the systems in place. A critical first step is to assess the NRAs according to evidence-based tools and criteria. In 2015, sixteen countries were evaluated in assessments, self-assessments or observed audits. Each of these countries obtained assistance in preparing an official institutional development plan, outlining areas for improvement and determining priority activities. RSS has initiated technical and financial support to address IDPs in priority countries.

### **REVISION OF INDICATORS FOR BENCHMARKING REGULATORY SYSTEMS**

On the basis of consultations with experts and stakeholders, WHO in 2015 developed a prototype of a comprehensive tool (the WHO global benchmarking tool) to assess regulatory capacity for medical products and health technologies. WHO is moving forward with finalizing, piloting and using the benchmarking tool, incorporating high levels of transparency and promoting the concept of reliance among different regulatory systems, as part of overall good regulatory practices.







## TOP STORY

### VIETNAM NATIONAL REGULATORY AUTHORITY ACHIEVES SIGNIFICANT GOAL

Viet Nam is a vaccine producing country with a number of locally produced vaccines that could potentially be considered for supply by UN agencies. Increasing the number of potential vaccine suppliers positively impacts global supply and contributes to increased access. An important element of prequalification is the functionality of the national regulatory authority (NRA) in the producing country, as this body oversees the regulation of national manufacturers. Functionality of the national regulatory system is assessed and documented by the RSS Team against the WHO NRA published indicators.

As part of this programme, Viet Nam requested WHO technical support to build its regulatory capacity, particularly for vaccines. This was done through a series of NRA assessments from 2001 to 2015. The combined efforts of the NRA and WHO to build regulatory capacity were realized through in-country and institutional training opportunities, technical support and follow-ups that were driven through a roadmap and detailed institutional development plan. All of these efforts were coordinated with the WHO Western Pacific Regional Office and key external partner organizations that helped to provide direct and indirect support to the Government of Viet Nam.

The efforts culminated with a successful National Regulatory System assessment: In April 2015 the NRA of Viet Nam was declared as functional against WHO published indicators in the area of vaccine regulation, an important milestone in the country's regulatory progression.



# OTHER ACHIEVEMENTS

1

**Good Regulatory Practices (GRP) Guideline Development** - At a workshop held in Beijing, People's Republic of China, the outline of a high level guideline for GRP for medical products was developed. The draft guideline follows published concepts in GRP, adapting these to the regulation of medical products. The draft guideline is being targeted for consultation, refining and endorsement by relevant WHO expert committees in October 2016.

2

**Pandemic Influenza Preparedness (PIP) Guideline Development** - A stakeholder workshop in Tunisia began work to develop guidelines for countries that do not produce vaccines to expedite regulatory approval of influenza vaccines used in national immunization programmes and/or deployed by United Nations agencies in response to a pandemic emergency. A first draft of the guideline is ready, with finalization and endorsement by the relevant expert committee targeted for 2016.

3

**Technical Supplements Publications** - Sixteen technical supplements setting out the principal requirements for the safe storage and distribution of time- and temperature sensitive pharmaceutical products were published online in May 2015. The package was developed to show how regulatory requirements can practicably be achieved, particularly in resource constrained settings. Target readership for the model guidance includes regulators, logisticians and pharmaceutical professionals in industry, government and international agencies.

[i Distribution](#)

4

**Model Regulatory Framework for Medical Devices** - Medical devices are an essential component of functioning health systems. There are an estimated 1.5 million different medical devices in more than 10 000 device categories available worldwide. While use of these products is growing globally, there is a lack of quality oversight on the markets of many countries. To respond to this gap, WHO is developing a Regulatory Framework for Medical Devices (including in vitro diagnostics) to support Member States in ensuring the quality and safety of these products. After public consultation, the Framework will be submitted for approval by a WHO expert committee in 2016.

## 5

**Building Regulatory Capacity** - An outcome of the assessment of NRAs by WHO, using well-defined benchmarking methodologies and indicators, is the identification and documentation of areas for development through the Institutional Development Plan (IDP). Assisting countries to address these areas is a key vehicle for building regulatory capacity.

In 2015 more than fifteen countries benefitted from workshops or training opportunities in support of their institutional plans.

One of these workshops, the **EPELA authentic e-Pharmaceutical Cold Chain Management course**, received the 2015 Gold Winner Hermes Creative Award in the e-learning category.

[i EPELA, 2015 Hermes Creative Award Gold Winner](#)

## 6

### Harmonization Initiatives

**The African Vaccine Regulatory Forum (AVAREF)** supports NRAs and ethics committees in making informed decisions concerning authorization of clinical trials, evaluation of product registration dossiers, and any other challenging issues related to vaccines evaluation. The current AVAREF membership includes representatives from 23 African countries and WHO serves as the secretariat. In 2015 AVAREF played a critical role in expediting joint reviews of Ebola candidate vaccine trials. In 2016 EMP will continue to support AVAREF as it transitions to a strengthened and expanded structure to support the African Medicines Regulatory Harmonization initiative.

Effective use of valuable and limited regulatory resources is enhanced when regulatory practices, requirements and standards become more similar among Member States. Various initiatives were supported in 2015 including the launch of the **West Africa Medicines Regulatory Harmonization (MRH)** Project, the launch of a project to support the implementation of **ASEAN harmonized regulatory requirements**, and the **first joint assessment of medicinal products dossiers conducted in the East African Community (EAC)**.

# SAV | SAFETY AND VIGILANCE

## RESPONDING TO AND MINIMISING HEALTH RISKS FROM MEDICAL PRODUCTS

The department's Safety and Vigilance (SAV) Unit focuses on the safety aspects of medical products with the goal of enabling country capacity for pharmacovigilance and promoting the safety of medical products globally. The team leverages its extensive network of national and WHO collaborating centres to provide policy advice on safety concerns of global importance and ensure rapid release of safety alerts. The teams also focus on enhancing harmonization of pharmacovigilance tools and methods – for assessment, information exchange between public and private sectors, and the conduct of safety studies.

i Safety and vigilance





## HIGHLIGHTS

### SUPPORTING COUNTRIES TO RESPOND TO SAFETY CONCERNS

WHO's global vaccine safety work supports countries to address safety concerns through building capacity to monitor the safe use of vaccines. While vaccines against Human Papillomavirus (HPV) have demonstrated value to prevent cervical cancers in women, numerous concerns have been raised about potential safety. SAV has worked with global experts to undertake rigorous epidemiological studies to consistently document the safety of these products. This evidence has been used by WHO's independent expert advisory committee on vaccine safety, GACVS, which has provided updated statements that confirm the safety of those important public health tools.

[i The Global Advisory Committee on Vaccine Safety](#)

### FACILITATING THE PUBLIC'S REPORTING OF ADVERSE EVENTS FROM MEDICINES – LAUNCH OF VIGIACCESS

Pharmacovigilance, or drug safety, largely relies on the sharing of information about adverse effects from medical products. The general public has a vital role to play to increase understanding of products' safety by reporting adverse events. However, this type of reporting is not as frequent as needed, partly because of lack of awareness and knowledge about where such events can be reported. To make it easier for the public to report adverse events, and ultimately improve patient safety, WHO launched VigiAccess™ in April 2015, a user friendly web application that gives access to information in Vigibase, a large global collection of adverse reactions to medicines received from member countries.

[i Open Access to the WHO Global Medicines | Safety database](#)





## TOP STORY

### GLOBAL SURVEILLANCE AND MONITORING SYSTEM

WHO has developed a surveillance and monitoring system designed to significantly improve the quantity and quality of data to better the understanding on substandard/spurious/falsely-labelled/falsified/counterfeit (SSFFC) medical products. This system and the resulting data are one of a kind. Working through this system, WHO has been able to provide technical support to Member States in emergency or high-risk situations by issuing rapid alerts and minimising harm to the public and saving lives. At a holistic level, the programme is accumulating a significant body of evidence – of strategic importance – concerning the scope, scale and harm caused by SSFFC medical products and the identification of vulnerabilities in supply chains.

Started as a short pilot study, the system was rolled out in July 2013. By the end of 2015, 113 Member States had participated in 11 regional training workshops. Over 320 regulatory personnel and 18 of the largest International Procurement agencies had been trained in the use of the system and had reported over 900 cases of SSFFC medical products.

It is only through a collaborative international effort and an innovative approach that a clearer understanding of the issue will be obtained. Consequently, it will be possible to establish and implement sound strategies to prevent, detect and respond to incidents involving SSFFC medical products, whilst allocating limited resources more effectively.

[i WHO Surveillance and Monitoring System](#)



# OTHER ACHIEVEMENTS

1

Over **500 staff from national regulatory authorities, pharmacovigilance centres and immunization programmes of 24 Member States** were trained on vaccine safety through the Global Vaccine Safety Initiative (GVSI). GVSI supports countries to strengthen their capabilities to monitor vaccine safety, gain access to reliable vaccine safety information, and provides expert advice on safety issues. The current work priority is to strengthen vaccine safety capacity in 29 African countries focusing on enabling the implementation of a national work plan.

[i The Global Vaccine Safety Initiative \(GVSI\)](#)

2

In 2015 we initiated work to develop **innovative study models to better characterize the safety profile of vaccines**. We are following 30 000 infants in India, to improve understanding of the health of children against the backdrop of the country's Universal Immunization Programme. This will provide a clear understanding of how vaccination is improving the children's health and survival. In 16 countries we are also studying how to obtain useful vaccine safety information from hospital records.

[i The Global Vaccine Safety | Tools and methods](#)

3

WHO has facilitated **training of key personnel in countries to actively monitor the use of Bedaquiline**, a recently developed medicine to treat drug-resistant TB that was included in the WHO Essential Medicines List. As the drug has been accelerated in its development and approval, its use in TB patients must be followed carefully. The data generated from these studies will enable WHO to fine-tune recommendations to countries on how to effectively use this vital medicine and provide valuable lessons to countries on how to develop and deploy similarly crucial therapies.

[i Active TB drug-safety monitoring and management \(aDSM\)](#)

4

WHO has supported countries in **sub-Saharan Africa to control the use of medicines combinations for seasonal malaria by training pharmacovigilance staff** from a number of African countries. The programme has the potential to protect over **seven million children from malaria**.

[i Seasonal Malaria Chemoprevention and Pharmacovigilance, Morocco, May 2015 \(page 37\)](#)

5

In 2015 **WHO published a set of metrics and indicators for countries** to measure the strengths and weaknesses of their **safety monitoring systems for medical products**, to know where the gaps are, what has been achieved, and what more needs to be done. In the world of competing priorities and limited resources, it is vital to measure the results achieved. The indicator guide is designed to be simple and can be understood by any worker in pharmacovigilance without formal training in monitoring and evaluation.

[i WHO Pharmacovigilance Indicators](#)

6

**Two regional workshops on WHO Surveillance and Rapid Alerts** were held for SSFFCs – one in Ethiopia for 17 East African and EMRO Member States, and a second in Argentina for 30 American countries.

[i Regulatory Strengthening and capacity building](#)

7

**WHO Medical Product Alerts** - In 2015, five WHO Medical Product Alerts were issued – two for vaccines and three for WHO prequalified medicinal products. One such alert was issued by Médecins Sans Frontières (MSF) for falsified diazepam, which had led to over 1 000 hospitalizations in the Democratic Republic of the Congo. MSF identified the root cause as wrong labelling - medicine was labelled as diazepam, when in fact it contained haloperidol for the treatment of schizophrenia. Investigations suggest the false labelling and falsification of packaging in a neighbouring country.

Another Medical Product Alert was issued for Meningitis C vaccines in Niger discovered and reported by one of the national programme's trained focal points. WHO conducted enquiries that confirmed the products to be falsified. Recalls of the batches and public awareness campaigns were conducted in Niger. The falsified vaccines had been used in hospitals, private companies to vaccinate staff and in local nongovernmental organizations' vaccination campaigns. No serious adverse reactions were recorded.

[i WHO Medical Product Alerts](#)

# TSN | TECHNOLOGIES STANDARDS AND NORMS

## ESTABLISHING INTERNATIONAL STANDARDS FOR BETTER MEDICINES AND BIOLOGICALS

Whenever individuals receive a diagnosis, treatment or are immunized, they unknowingly rely on norms and standards established by WHO for in vitro diagnostics, medicines and vaccines. This function is enshrined in the WHO Constitution. For more than 60 years now, WHO expert committees, serving as official advisory bodies to the Director-General, have been establishing global norms and standards. The Technologies Standards and Norms team is responsible for developing those norms and standards for medical products.

**“Early on, WHO constructed a protective fabric of international guidelines, norms, and standards on the assumption that people everywhere deserve the same assurance that the air they breathe, the water they drink, the food they eat, and the medicines they take are safe. Today, the protection provided by these standards is largely invisible and usually taken for granted by citizens until something goes wrong.”**

Margaret Chan, WHO Director General





## HIGHLIGHTS

### GOOD DATA AND RECORD MANAGEMENT PRACTICES – WHO LEADS THE WAY

The Expert Committee on Specifications for Pharmaceutical Preparations (ECSP) adopted the first international guidance on data integrity in October 2015 – a much-needed document to assist regulatory authorities and inspectors reduce incidents of incomplete presentation of data by manufacturers or deliberate data falsification. Failure to present true and correct data can impact on the quality and safety of medical products. These guidelines highlight, and in some instances clarify, the application of data management procedures.

[i WHO Director-General addresses UK medicines regulatory authority](#)

### RESPONDING TO PUBLIC HEALTH EMERGENCIES OF INTERNATIONAL CONCERN (PHEIC) – IMPACT OF REFERENCE STANDARDS FOR IN VITRO DIAGNOSTICS (IVDS)

One of the first requirements for responding to a PHEIC is accurate diagnosis. The recent Ebola, Middle East Respiratory Syndrome (MERS) and Zika outbreaks have highlighted the need for rapid development and standardization of safe, well performing, quality IVDs. As part of WHO's core mandate and in order to support these efforts, WHO established international Ebola standards for the development and harmonisation of Ebola virus nucleic acid technology (NAT) and serology IVDs. Harmonisation of Ebola NATs produced significant improvement as shown in the figure below? showing how international standards are key for the development of IVDs.







## TOP STORY

### FACILITATING VACCINE DELIVERY – EXTENDED STORAGE TEMPERATURE FOR IMMUNIZATION

Vaccine quality depends on cold chain storage. It is recognized that immunization programmes in certain regions face substantial challenges in maintaining cold chains in the field, especially during the final stage of distribution in remote areas. The new WHO guidelines on “extended controlled temperature conditions” is a direct response to programmatic needs and provides assurance of a vaccine stability at temperatures above those of a typical cold chain. This allows greater flexibility in vaccination campaigns by reducing the burden on health-care workers, saving the cost of refrigeration and infrastructure, and addressing difficulties of wet ice vaccine distribution. The new guidelines will facilitate development, regulatory evaluation and subsequent use of vaccines that have undergone thorough stability testing at extended temperature conditions. As a result, immunization staff can vaccinate more people in remote areas.

[▶ MenAfriVac use in CTC in Benin](#)

[▶ Controlled Temperature Chain](#)



# OTHER ACHIEVEMENTS

1

## **Capacity building – How do laboratories measure their performance?**

The External quality assurance assessment scheme (EQAAS) for laboratories is a coordinating scheme organized by WHO with a view to evaluating the technical performance of pharmaceutical quality control laboratories. EQAAS gives each participating laboratory the opportunity to measure its performance through a confidential system of testing of blind samples and to determine its ability to perform a given analytical procedure within a network of national or regional quality control laboratories. Its aim is to continue the promotion of quality assurance in pharmaceutical quality control laboratories in WHO Member States.

In 2015 the sixth phase was run. The participating laboratories carried out two tests. Since its initiation in 2000, some 60 pharmaceutical quality control laboratories from WHO's six geographical regions participated in these studies.

[i External quality assurance assessment scheme \(EQAAS\)](#)

2

**The International Nonproprietary Names (INNs)** facilitate the identification of pharmaceutical substances or active pharmaceutical ingredients. Each INN, also known as a generic name, is a unique name that is globally recognized and is public property. Requests for new INNs have increased by almost 60% in the last ten years, reflecting growing interest from stakeholders in this service provided by TSN. In 2015 alone, 188 new INNs were published by the Programme covering new therapeutic areas such as cell therapy products for which a naming scheme has been finalized.

[i International Nonproprietary Names](#)

3

**The first implementation workshop on WHO guidelines for evaluating Similar Biotherapeutic Products (SBPs) in the African region** was held in 2015. Many developing countries rely on international standards to regulate SBPs, as well as other medicines. Experts expect that SBPs will increase access to more affordable biotherapeutic products. However, regulation of these products in many developing countries will require additional capacity for experts to perform the technical review of these products for regulatory approval.

[i Guidelines on evaluation of similar biotherapeutic products \(SBPs\)](#)

## 4

**Standardization of Human Papillomavirus (HPV) vaccine** - Improving and facilitating access and affordability to safe and effective HPV vaccines has been of great interest to international agencies. In light of the substantial amount of data accumulated during broad implementation of the first two HPV vaccines since 2006, and the recent development of new HPV vaccines, WHO, in close collaboration with its Collaborating Centres, national regulatory authorities, industries and international scientific and professional communities, has updated the technical specifications for HPV vaccines (WHO Technical Report Series No. 962, Annex 1). The revised guidance was approved by the Expert Committee on Biological Standardization (ECBS) in October 2015 and published on the WHO biologicals website.

[i Recommendations to assure the quality, safety and efficacy of recombinant HPV-like particle vaccines](#)

## 5

**Fiftieth anniversary - forever young and active!** In 2015, the Expert Committee on Specifications for Pharmaceutical Preparations (ECSP) celebrated its fiftieth anniversary. Representatives from national regulatory authorities emphasized the importance and value of this Committee's work for WHO Member States. The written and physical standards to test medicines and IVDs for their quality and performance, together with the wide range of guidelines, good practices and regulatory guidance in the area of medicines' quality assurance are designed to serve all Member States, especially their national and regional regulatory authorities, United Nations agencies, regional and interregional harmonization efforts, and underpin important public health initiatives, including the prequalification and procurement of quality medicines through international procurement agencies. During this 50th meeting, the Expert Committee adopted 10 new guidelines and good practices, 22 test specifications for essential medicines and 9 physical references standards.

[i Saving lives through the promotion of quality medicines](#)

### **Report to EB**

[i Main documents](#)

[i Medicines quality assurance](#)

### **How it works**

[i How does it work?](#)

### **What it does**

[i Quality assurance of pharmaceuticals: Meeting a major public health challenge](#)

# FINANCIAL OVERVIEW

TOTAL BUDGET  
FOR THE BIENNIUM  
2014 – 2015

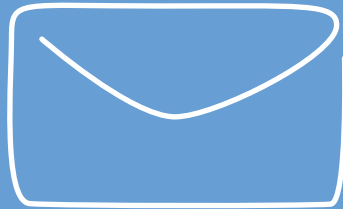
US\$

100.3  
MILLION

Does not include the planned budget of WHO Country and Regional Offices



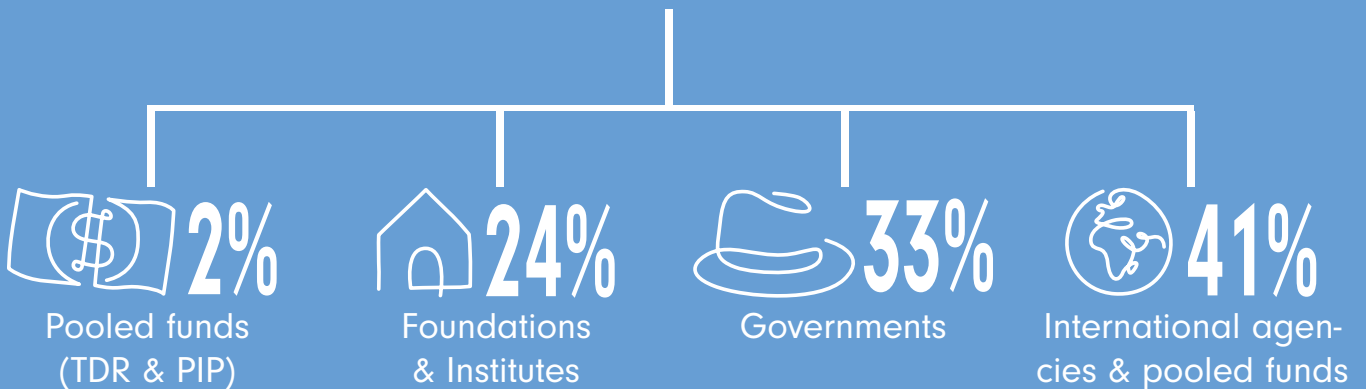
# FUNDED WITH



**10%**  
of core funds



**90%**  
of voluntary  
contributions



# DONORS

## EXTENDING A THANKS TO EXISTING DONORS

- EMP continues to depend heavily on voluntary contributions from a core group of government donors including Canada, France, Germany, Japan, the Netherlands, the United Kingdom and the United States.
- Critically important contributions from UNITAID and the Bill and the Melinda Gates Foundation to the WHO Prequalification Programme and regulatory systems strengthening are on the increase.
- With financing from the European Commission's Directorate-General for Research and Innovation, WHO has benefitted from participation in international consortia in the areas of palliative care, access to controlled medicines, paediatric medicines and evidence-based health interventions.
- The European Commission Directorate-General for Development and Cooperation continues to provide invaluable support to WHO's work to improve pharmaceutical policies and systems in 15 APC countries in Sub-Saharan Africa; as well as to efforts to improve access to medical products through local production and related technology transfer.
- International health agencies -namely, GAVI, UNICEF, UNFPA, UNITAID and the World Bank - continue to provide important support to work on improving medical products quality.
- Financial support from the OPEC Fund for International Development has enabled the creation of the first global list of medical devices for cancer care.
- EMP continues to draw on the technical expertise of its worldwide network of 127 WHO Collaborating Centers and 40 non-governmental organizations in official relations with WHO. The Republic of China, France, Japan, the Netherlands, the Republic of Korea and Thailand have provided additional expertise and country experience through the secondment of national professional staff to EMP.

## EXPANDING THE DONOR BASE

- The work of the Member States Mechanism on SSFFC is benefitting from new contributions from Brazil and India;
- New contributions from the United Kingdom Department of Health have enabled EMP's work on the Global Action Plan on Antimicrobial Resistance, more particularly in the area of optimizing use of antimicrobial medicines.

# FULL LIST OF CONTRIBUTORS

## GOVERNMENT AND INTERGOVERNMENTAL ORGANIZATIONS

Brazil, Canada, People's Republic of China, the European Commission (Directorate General for Development and Cooperation and Directorate General for Research and Innovation), France, Germany, Japan, Republic of Korea, the Netherlands, the United Kingdom and the United States of America.

## FOUNDATIONS AND NON-GOVERNMENTAL ORGANIZATIONS

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## INTERNATIONAL AGENCIES

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