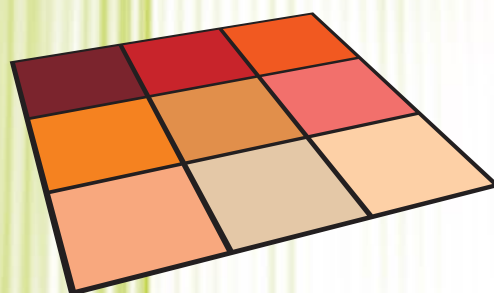


# ESSENTIAL HEALTH TECHNOLOGIES STRATEGY 2004-2007



- BLOOD TRANSFUSION SAFETY ■
- BLOOD PRODUCTS AND RELATED BIOLOGICALS ■
- LABORATORY SERVICES ■
- DIAGNOSTIC IMAGING ■
- MEDICAL DEVICES AND EQUIPMENT ■
- DISTRICT HOSPITAL SURGERY ■
- TRANSPLANTATION ■
  
- MODEL LIST OF ESSENTIAL MEDICAL DEVICES ■
- PREVENTION OF HEALTH CARE ASSOCIATED HIV INFECTIONS ■
- INFORMATION TECHNOLOGY IN HEALTH CARE ■





# ESSENTIAL HEALTH TECHNOLOGIES

– Taking basic health solutions to countries

## STRATEGY 2004 - 2007

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A needs-driven programme increasingly  
based on country-prepared proposals

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## EXECUTIVE SUMMARY

*Essential health technologies are evidence-based technologies that provide cost-effective solutions to health problems.*

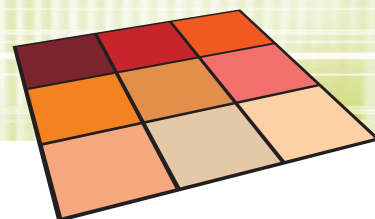
*Health technologies are used at every level of the health care system. From the simplest to the most advanced, they form the backbone of the services medicine can offer in the prevention, diagnosis and treatment of illness and disease.*

*The Department of Essential Health Technologies (EHT) has arisen out of what was formerly the Department of Blood Safety and Clinical Technology (BCT). The renaming of the department does not mean that WHO will give less priority to blood safety activities than in the previous four years. Rather, it reflects the recognition that many other health technologies play equally important roles as blood transfusion in prevention and health care and so also deserve to be given priority.*

*Consequently, the strategy proposed by EHT for 2004-2007 will build on BCT's 2002-2003 strategy while at the same time reflecting more clearly the department's role as WHO's programme on health technologies.*

*EHT will strengthen its emphasis on blood transfusion and biological products of human origin, diagnostic imaging, laboratory services, medical devices and surgical and anaesthetic procedures at the district hospital.*

*EHT will also launch new key initiatives, including the establishment of a WHO model list of essential medical devices, the prevention of health care-associated HIV infection and e-health (in particular, telemedicine and informatics).*



*The most profound differences, however, will be two major operational changes that will take EHT effectively towards a strongly dedicated country focus.*

*The first is the creation of sets of basic operational frameworks defining achievable requirements for safe and reliable health services at country level.*

*The second will be a progressive reallocation of resources in support of country-prepared proposals for projects that aim to meet these requirements in their health services.*

*As a result, EHT will evolve to become a needs-driven, project-based unit in the sense that most of its activities will develop out of proposals generated by Member States rather than by WHO staff members.*

*As WHO's health technology programme, EHT will continue to provide authoritative advice on norms, standards and guidelines for the use of essential health technologies and to work in close collaboration with its partners.*

- BLOOD TRANSFUSION SAFETY ■
- BLOOD PRODUCTS AND RELATED BIOLOGICALS ■
- LABORATORY SERVICES ■
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## BACKGROUND

### Health technologies are everywhere

Health technologies are the backbone of all health systems. They are essential tools in solving health problems. Even the most simple health system cannot function without at least some of them.

Health technologies  
are essential  
when they:

- **Meet basic needs for health services**
- **Have been proven to be cost-efficient**
- **Are evidence-based.**

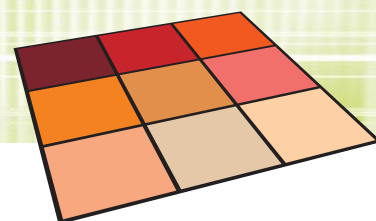
Health technologies are evidence-based when they meet well-defined specifications and have been validated through controlled clinical studies or rest on a widely accepted consensus by experts.

The WHO Commission on Macroeconomics and Health has documented how heavy investment in building basic health systems in developing countries will result in huge returns.

Today, the majority of the world's population is suffering from poverty and is denied adequate, safe and reliable access to the solutions that health technologies can offer.

There is a vast shortage of diagnostic radiology and laboratory services in developing Member States while, at the same time, about half of the available equipment does not function. About 6 million of some 80 million units of blood donated annually are not tested in accordance with WHO recommendations on screening for infectious pathogens and 22 million cases of hepatitis B, 2 million cases of hepatitis C and 260 000 cases of HIV/AIDS are caused by unsafe injections.

Clearly, health technologies should not be promoted as an end in themselves. They should only be chosen when they meet an evident need and are cost-effective.



Some technologies address only one health problem, whereas others are uniquely designed to address many problems simultaneously. Effective health sector systems calling for optimal resource allocation consistently rely on strong elements of cross-cutting technologies with multiple applications.

### Which essential health technologies are supported by EHT?

**Technologies are supported when they are:**

- **The only ones available**
- **The cheapest ones available for comparable quality**
- **The best ones available for comparable price.**

Diagnostic radiology services, clinical laboratory services and surgical services are examples of health care services that typically make use of technologies that have multiple applications. A vast number of health problems can be dealt with where there is access to an X-ray machine, a laboratory, a blood bank and a simple surgical operating room.

### Objectives *Focusing on country impact*

**The objectives of EHT are to:**

- **Strengthen the ability of Member States to address health problems through the use of essential health technologies**
- **Assist Member States in establishing safe and reliable services for essential health technologies through the adoption of basic operational frameworks covering policy, safety, access and use**
- **Develop norms, standards, guidelines, information and training material and foster research on essential health technologies in support of the establishment of effective health services by Member States.**

## HOW DOES EHT ACHIEVE ITS OBJECTIVES?

### Targeting technologies that have multiple applications at a realistic level

#### CHOICE OF TECHNOLOGIES AND INITIATIVES

The main thrust of EHT's activities will be to assist Member States in establishing and optimizing the use of medical technologies with multiple applications for health services in the fields of:

- Blood transfusion safety
- Blood products and related biologicals
- Laboratory services
- Diagnostic imaging
- Medical devices and equipment
- District hospital surgery
- Transplantation.

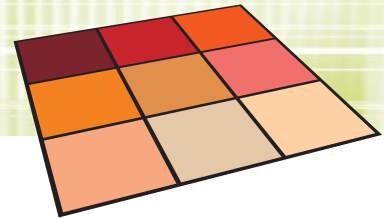
The establishment of each of these technologies poses separate challenges to which EHT is offering its distinctive solutions (see Challenges and Solutions on pages XX-XX).

In addition, EHT is giving priority to three key initiatives that cut across these technologies:

- Development of a list of essential medical devices
- Prevention of health care-associated HIV infections
- Use of information technology in preventive and curative health care.

#### TOWARDS AN ACHIEVABLE LEVEL OF SELF-RELIANCE

EHT is committed to helping countries to attain a safe and reliable level of health service that is realistically achievable, even in economies that are developing or in transition. To this end, EHT has created the concept of **basic operational frameworks** which define the key requirements for achieving this level of service.



Fundamentally, basic operational frameworks are sets of elements that, if implemented collectively, will confer a safe and reliable level for health **policy, quality** and **safety, access** and **use** of the technology or service that is covered by the relevant framework.

## What are basic operational frameworks?

**Basic operational frameworks are lists of operational elements that collectively define the requirements for a basic level of health service, thus proposing to each Member State:**

- **A milestone to be reached**
- **Guidance on how to reach the defined level**
- **A framework for EHT to fill out with products and services that form the basis of technical cooperation in response to requests for assistance.**

Clearly, the requirements for the establishment of a technology differ between technologies and, accordingly, there is a certain distinctive variation between the EHT frameworks for each technology. But they all share fundamental qualities in requirements such as efficacy, efficiency and timeliness.

*The full EHT basic operational frameworks are available on the EHT homepage at [www.who.int/eht](http://www.who.int/eht).*

### **EHT, WHO'S AUTHORITATIVE ARM FOR HEALTH TECHNOLOGIES**

The support provided by EHT relates directly to the normative work of setting standards, and providing guidelines, training material and other products that EHT is expected to undertake under the WHO Constitution.

This statutory work will progressively be refocused to ensure that EHT products and services provide more tailored support to countries aspiring to establish the level of health service that is defined by each of the basic operational frameworks.

## THE COUNTRY FOCUS OF EHT

### Reallocating resources to support country-prepared proposals

The country focus of EHT will progressively form an increasing and integral part of its programme, from the development stage through to delivery and implementation. It will consist of four main elements:

- Identification of gaps in services in Member States
- Call for project proposals from Member States
- Selection of proposals to be included in EHT's programme
- Implementation of the selected projects.

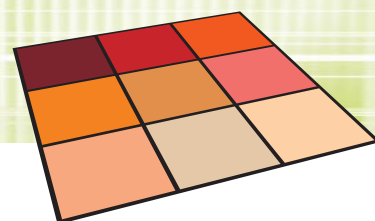
#### EHT PROGRAMME DEVELOPMENT

During the 2002-2003 biennium, EHT devoted 30% of its extrabudgetary resources to activities at regional and country levels. In 2004-2007, there will be a progressive shift to Regional Offices and Country Offices in decision-making on the allocation of these resources. The target for 2007 is that 70% of extrabudgetary resources will be spent at country level in funding the implementation of country-prepared project proposals.

Progressively, a system will be established to initiate programme development at country level, starting with selected pilot countries in the different regions.

First, Member States, together with WHO Representatives and representatives from the Regional Offices, will be invited to use the basic operational frameworks to identify gaps in their health services and to write a short summary of their observations.

Next, Member States (Ministries of Health, in collaboration with relevant national authorities and professionals) will prepare project proposals requesting WHO for help to close identified gaps in the frameworks and send the proposals, through the WHO Country Offices, to their Regional Office. A template for project proposals can be downloaded from the EHT homepage. In preparing their proposals,



countries will set priorities regarding the identified gaps they wish to close first and focus their proposals on those needs.

Regional Offices and Headquarters will jointly appraise received proposals and select the projects that can be financed from WHO resources. Priority will be given to project proposals that demonstrate high levels of government commitment and direct end-user benefit.

Funding for high quality project proposals that WHO is not in a position to finance will be sought through dedicated applications to external donors and partners.

### **REFOCUSING THE WORK OF EHT IN RESPONSE TO COUNTRY NEEDS**

As countries increasingly benefit from WHO assistance in bridging gaps in the basic operational frameworks, WHO Headquarters, in collaboration with Regional and Country Offices, will identify gaps in the EHT portfolio of products that must similarly be filled to provide effective support for each element of the frameworks; these include norms, standards, guidelines, procedures and training materials. The identified gaps will form the central criteria for the selection of support products and services to be developed by EHT in 2004-2007.

Guided by the frameworks, EHT will also refocus its network and database activities as well as its agreements with Collaborating Centres and collaboration with other partners.

### **EHT'S PROGRAMME**

As the number of country-prepared project proposals gradually grows, EHT's programme will increasingly focus on those project proposals that can be supported.

Regional Offices, in collaboration with Headquarters and Country

Offices, will coordinate the implementation of the projects that are included in the programme. Delivery mechanisms include training courses and workshops, expert missions, fellowships and the provision of equipment.

Headquarters, in collaboration with Regional Offices, will as in previous years continue to develop and update the norms, standards, guidelines and training material that have been selected for inclusion in the programme.

Likewise, Headquarters and Regional Offices will continue to coordinate the networks and agreements with Collaborating Centres and the development and maintenance of databases and other information material.

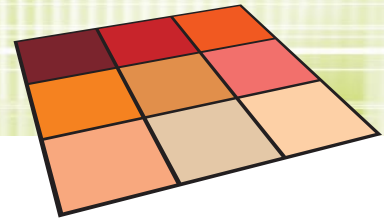
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## Mission

### *What EHT does*

#### **Being WHO's programme on health technologies, EHT**

- **Develops and maintains basic operational frameworks for safe and reliable health services and technologies**
- **Assists Member States in filling out the basic operational frameworks through country-prepared project proposals**
- **Develops norms, standards, guidelines, training materials, reference materials and estimation of the burden of disease**
- **Has a particular focus on the diseases of the poor.**



### IMPLEMENTATION OF THE COUNTRY FOCUS

EHT aims:

- By early 2004, to have started reviewing its work with Member States to identify gaps in their health services that can be filled through dedicated projects in pilot countries.
- By mid-2004, to have received at least 10 project proposals from Member States so that project implementation can start in early 2005 in selected countries and by mid-2005 on a broader base in a larger number of countries.
- Annually through 2005-2007, to implement an increasing number of projects proposed by Member States, targeting at least 30 per year by the end of 2007.
- By the end of each year, to have produced a solid number of norms, standards, guidelines and training material in support of the basic operational frameworks.
- By 2007, through annual review of the basic operational frameworks with Member States, to be able to demonstrate that expected outcomes have been achieved.

## CHALLENGES AND SOLUTIONS

### What EHT can offer to fill the gaps

The Department of Essential Health Technologies offers specific solutions to various challenges and concrete inputs when responding to project proposals developed by Member States. In spite of the diversity of the technical disciplines, each area of work is structured through its basic operational framework and has the same four main strategic objectives for the level of health service:

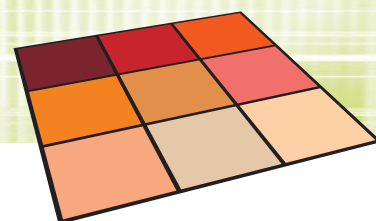
- Policy
- Quality and safety
- Access
- Use.

As part of its **policy** objective, EHT assists countries to benchmark, assess, plan, implement and evaluate national policies and plans for the area of work. As part of its **quality and safety** objective, EHT contributes to the establishment of comprehensive systems to ensure the quality and safety of products and services. As part of the **access** objective, EHT develops mechanisms to promote universal and equitable access to health technologies. Finally, as part of the **use** objective, EHT formulates guidance on the rational, appropriate and cost-effective use of health technologies.

#### ■ BLOOD TRANSFUSION SAFETY

While blood transfusion is an essential and life-saving support within the health care system, the safety of transfusion is not assured globally, particularly in those countries without developed health care systems where around 80% of the world's population lives. Threats include lack of access to blood and blood products; the risk of transmission of infections such as HIV and viral hepatitis through unsafe transfusion; technical and clerical errors in the processing and testing of blood, inappropriate use of blood and errors in the administration of blood and blood components which may result in severe or fatal reactions.

### Challenges



### Solutions

EHT supports the establishment of well-organized, nationally coordinated blood programmes with quality systems including the development of a national blood policy and plan, legislation and regulation and the establishment of a national blood commission.

EHT assures the availability of national or international standards needed for the development of a quality system and an effective and accurate documentation system to ensure the traceability of all blood transfusion safety activities.

EHT supports countries in establishing a well-organized blood supply structure and a programme for the recruitment and retention of voluntary non-remunerated blood donors. EHT supports the provision and correct use of appropriate equipment and a reliable and adequate supply of blood bags, reagents, test kits and other materials.

EHT promotes strategies to ensure the appropriate prescribing and safe administration of blood and blood products to minimize unnecessary and unsafe transfusions. EHT maintains a database on the situation of blood transfusion services in Member States, maintains collaborative partnerships in global blood safety and serves as the secretariat for the Global Collaboration for Blood Safety (GCBS).

### ■ BLOOD PRODUCTS AND RELATED BIOLOGICAL PRODUCTS

### Challenges

"Biological products", which include "biological medicines" such as vaccines, animal sera, haematological products (blood, blood products and related substances), cell regulators, somatic cells and tissues, as well as "biological based *in vitro* diagnostic medical devices" are essential to the achievement of the WHO mission. Yet many countries lack an appropriate regulatory framework to assure the quality and safety of these biopharmaceutical products. Because of the special quality and safety issues related to biological products, Medicines Regulatory Authorities and Control Laboratories in developing countries need to acquire technical expertise to assure the compliance of these products with national and international regulations on quality and safety.

## Solutions

EHT is committed to strengthening the technical capacity of regulatory authorities for medicines and medical devices, assisting national authorities to identify gaps, set priorities, plan and implement activities to ensure the quality and safety of the blood products and related biologicals used in human medicine.

EHT supports the establishment of regional networks of National Regulatory Authorities to develop their technical capacity and expertise in the evaluation and control of blood products and related biological products and *in vitro* medical devices.

EHT coordinates the development and establishment of biological reference materials of application in this field.

At country level, EHT promotes the appropriate use of International Biological reference preparations through training and technical support carried out with international collaboration.

## ■ DIAGNOSTIC IMAGING

## Challenges

Diagnostic radiology, ultrasound, magnetic resonance and nuclear medicine are some of the most powerful medical technologies available to address clinical problems. Yet, globally, diagnostic imaging services are still insufficiently available. There is a depressing lack of equipment, inadequate types of equipment, non-functioning equipment and incorrect handling of equipment. It is estimated that some three-quarters of the world's population have no access to such services.

## Solutions

EHT helps countries to establish national policies and programmes for diagnostic imaging services as an integral part of all health care and strictly adapted to local needs and levels of care.

EHT focuses especially on the need to improve the skills and knowledge of end-users at first referral (district hospital) level through the development and implementation of training programmes and educational material.

EHT develops norms and standards for diagnostic imaging services in collaboration with the Global Steering Group for Education and Training in Diagnostic Imaging, relevant non-governmental organizations, WHO Collaborating Centres and UN organizations, such as the International Atomic Energy Authority.

EHT collaborates with manufacturers of imaging equipment to seek solutions to the need for efficient and modern imaging equipment at affordable prices. EHT is committed to supporting possible digital solutions that are affordable and suitable for facilities in remote locations with a poorly developed infrastructure.

## Challenges

### ■ DIAGNOSTIC SUPPORT AND LABORATORY SERVICES

Diagnostics and laboratory technologies in haematology, microbiology (including parasitology) and pathology (histology and cytology) play a critical role in surveillance, prevention efforts and the diagnosis and monitoring of treatment of major diseases including HIV/AIDS, tuberculosis and malaria. However, many countries have weak national systems, suffer from rudimentary procurement and supplies systems, present inequities between urban and rural areas and lack a suitable infrastructure and human resources. As a result, the quality of laboratory performance is variable and equipment is often either inappropriate or not maintained.

Insufficient numbers and a high turnover of skilled staff are a reality in many countries. Hence, there is a continuous need for training.

## Solutions

EHT develops tools for benchmarking laboratory and diagnostic services to assist in the development of national policies and guidelines on laboratory and diagnostic services and in planning, implementation and evaluation.

EHT assists in the strengthening of the National Regulatory Authorities and National Reference Laboratories. EHT supports the establishment of mechanisms to monitor the quality of performance of laboratory and diagnostic services, including external quality assessment schemes, audits and accreditation.

Information and guidelines on the selection of high quality diagnostics and laboratory equipment are made available to countries. The WHO bulk procurement scheme is facilitates wider access to these products through lower prices.

### ■ MEDICAL DEVICES AND EQUIPMENT

## Challenges

Despite the billions of dollars spent each year on an ever-increasing array of medical devices and equipment, the majority of countries still do not recognize the management of devices as an integral part of public health policy. Around 95% of medical technology in developing countries is imported, much of which does not meet the needs of national health care systems. Over 50% of equipment is not being used, either because of a lack of maintenance or spare parts, because it is too sophisticated or in disrepair, or simply because the health personnel do not know how to use it. This has far-reaching implications for the prevention of disease and disability and invariably leads to a deplorable waste of scarce resources.

## Solutions

EHT offers assistance in the establishment of national systems for the selection, procurement, use and disposal of medical devices that meet

international quality and safety standards. Such systems must be based upon needs assessment. In particular, the National Regulatory Authority must be effective, with legislation and policies to cover each stage in the life span of a medical device. This includes, as a priority, both the development of a database of authorized products and suppliers and a requirement that all medical devices meet international standards.

EHT encourages the establishment of national management of medical devices programmes to ensure that trained personnel, facilities and standard operating procedures are in place, with systems for preventive maintenance and repair of equipment. EHT products include policy and procurement guidelines, rapid assessment tools and training programmes for different types of health professional. Among medical devices, injections have been the focus of special attention because of the burden of disease associated with the unsafe use of syringes and needles.

#### ■ DISTRICT HOSPITAL SURGERY

### Challenges

Essential surgical care at the first referral level of health facility is a major priority. Injuries and pregnancy-related complications are the two leading causes of death, accounting for 12% and 18% of the global burden of disease, respectively. Worldwide, 60% of pregnant women and about 43% of children under 5 years of age are anaemic, with the highest estimated prevalence in Africa and Asia, resulting in serious consequences for surgical and anaesthetic care. The majority of the world's poor live in rural areas. Death and disability due to injuries and pregnancy related complications often result from a lack of facilities and trained human resources to give prompt appropriate care in rural health facilities.

### Solutions

EHT assists countries to develop national policies and plans for basic requirements to be in place for essential emergency surgical services and with health education and training for doctors, nurses, paramedical staff on best practices and effective methods of intervention in the management of trauma, pregnancy-related complications and anaesthesia.

EHT develops best practice guidelines, protocols and e-learning tools for monitoring and evaluation of appropriate use of essential emergency procedures and equipment for patient safety. EHT has already issued guidance on the procurement and maintenance of essential emergency equipment for procedures at the first referral level of health facility.

## ■ TRANSPLANTATION

### Challenges

Cell, tissue and organ transplantation have the capacity to save lives and restore essential functions in circumstances when no medical alternative of comparable effectiveness exists. The procurement of human material for transplantation raises ethical concerns such as the risk of commodification of the human body. Access to basic transplantation, such as cornea or kidney, needs to be developed in many countries. Given the potential risk of transmission of animal pathogens, the promises of xenotransplantation need to be confirmed through carefully monitored trials involving international cooperation.

### Solutions

EHT helps countries in implementing care using transplantation adapted to their needs following internationally recognized principles on ethics, safety and efficacy.

EHT assists Member States to develop evidence-based national policies on cell, tissue and organ transplantation.

EHT provides standards and principles of good practices and quality management systems to ensure the safety and quality of human material for transplantation.

EHT helps countries to develop surveillance mechanisms for the safety of the living donor and the success of transplantation in the long term for the recipient.

EHT supports vigilance mechanisms to ensure that, in particular, xenotransplantation trials are carried out under oversight of health authorities.

## KEY INITIATIVES FOR ESSENTIAL

## HEALTH TECHNOLOGIES

### Cutting across technologies

At one extreme, technologies can be chosen to address one specific cluster of health problems (such as conditions associated with infectious diseases) while, at the other extreme, a technology can serve as a tool to address virtually all problems (e.g. information technology). Regardless of the problem or the technology, when a country wishes to engage in the use of a technology, it faces the challenge of how to get started.

For 2004-2007, EHT has chosen three examples of how technologies may span public health issues as key initiatives for its advocacy work and the development of support products.

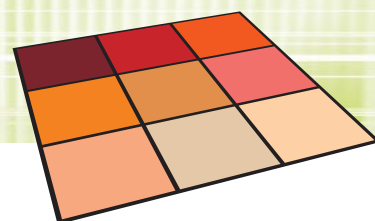
#### ■ LISTS OF ESSENTIAL MEDICAL DEVICES

#### Background

Medical equipment represents a significant proportion of national health care expenditure. However, many facilities, such as district hospitals, continue to lack the basic technologies they need to provide quality care to their patients, invariably because equipment is unavailable, inoperative, misused or simply inappropriate. Appropriate procurement policies and practices are fundamental to ensuring access to medical devices and to guide their rational use. In the same way that the WHO model list of essential medicines has been the keystone of the development of national medicine policies, EHT will develop a model list of essential medical devices.

#### Activities

Model lists of essential equipment will be developed to address various country needs, including the level of health care (from primary care to referral hospital) and the discipline (e.g. surgery, blood transfusion). Guidance will be offered to assist countries in establishing their own national lists of medical devices to support appropriate use.



#### ■ PREVENTION OF HEALTH CARE-ASSOCIATED HIV INFECTIONS AND OTHER NOSOCOMIAL INFECTIONS

##### Background

Approximately 10% of all new HIV infections may be caused by the transfusion of infected blood, unsafe injections or other unsafe skin-piercing procedures. These infections are preventable with simple, effective interventions.

##### Activities

In 2004-2007, EHT will offer countries a toolbox of materials and technical support to strengthen their capacity to prevent the transmission of HIV and other nosocomial infections in health services. Key interventions address the establishment of nationally coordinated blood transfusion services that can provide safe and adequate supplies of blood, the safe and appropriate use of injections and universal/standard precautions. Essential procedures for these interventions also form part of the Essential Health Technologies information package. In addition, EHT serves as the secretariat for the Safe Injections Global Network (SIGN).

#### ■ INFORMATION TECHNOLOGY FOR HEALTH CARE

##### Background

The need to develop and organize new ways of providing more efficient health care services and major advancements in information and communications technology have resulted in the increased use of e-health applications over the past decade. The availability of e-health technology to facilitate medical care, irrespective of distance and the availability of medical specialists on site, make it attractive to the health care sector.

##### Activities

EHT's information communication technology activities are managed under its information technology resource centre (ITRC) with the purpose of strengthening access to health information management through improved information systems. It maintains the EHT website which provides comprehensive access to EHT products and activities, including EHT's packages of standards, guidelines and training materials. Much of this material is supported by a wide variety of multimedia products. EHT is specifically dedicated to meeting Member States' requests for e-learning tools and telemedicine.

## RESOURCES

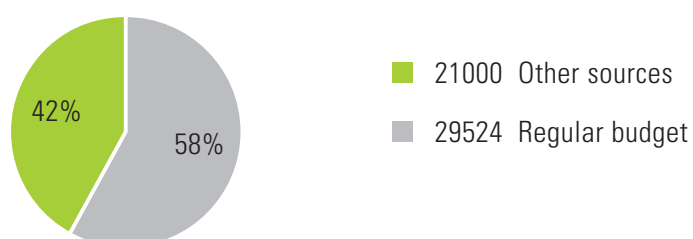
### - and threats

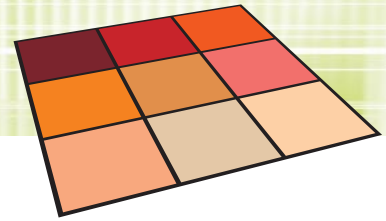
EHT is staffed by highly motivated individuals. However, for several of its core activities, it is, unfortunately, thinly staffed. This, together with rather weak extrabudgetary funding for the department up to 2003, sets a clear limit to the number of country-prepared proposals that can be funded and supported under the programme if the resources available are unchanged during the implementation of the 2004-2007 strategy. Successful resource mobilization is a prerequisite, as well as an overriding challenge, for the programme to achieve its planned outcomes.

EHT's anticipated budget and resources for 2004-2007 are shown below, based on a projection of current allocations and donations (Figure 1). Figures 2 and 3 show how the current budget is spent. Figure 4 shows the expected effect of an annual 10% reallocation (40% over four years) of extrabudgetary resources towards the regions and Member States as a result of the new country focus of the EHT strategy.

**Figure 1**

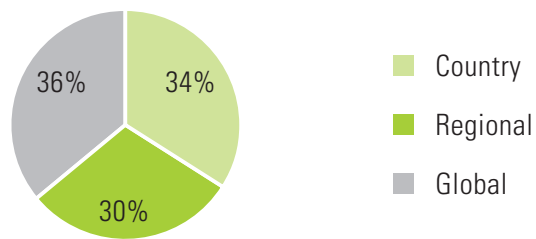
EHT Resources 2004–2007  
*Percentage and US\$ thousand*





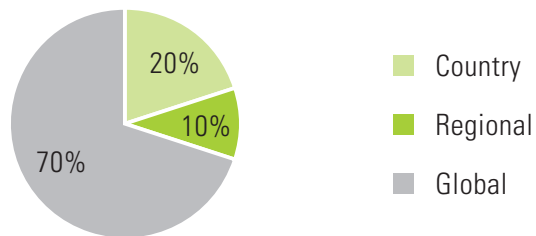
**Figure 2**

EHT Resources 2004–2005: Regular Budget  
*Level at which estimated percentage spent*



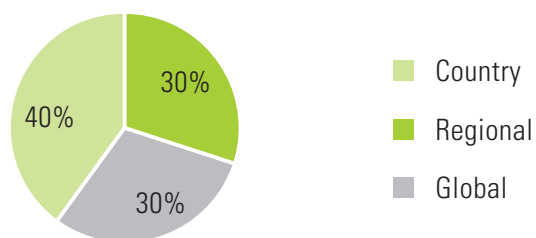
**Figure 3**

EHT Resources 2003 – Other Sources  
*Level at which estimated percentage spent*



**Figure 4**

EHT Resources 2007  
*Level at which estimated percentage to be spent*



## WHAT WILL EHT HAVE ACHIEVED BY 2007?

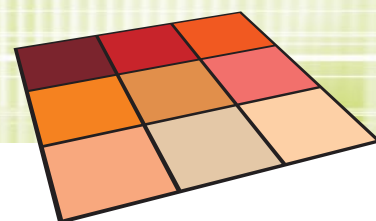
### - the EHT vision

Today there is a fairly low and unarticulated perception in many Member States of the role that health technologies can play in prevention, health care and the establishment of cost-effective health systems.

By 2007, EHT expects to have assisted Member States to reach or partly reach a safe and reliable level of health service, as defined in the EHT basic operational frameworks, and to set and achieve clear, concrete goals and milestones for their health services that fall under EHT's programme.

Important outcomes of EHT activities will be that countries will have closed a substantial number of gaps in their health care services. Key indicators of these outcomes include the following.

- At least six additional countries will have established nationally coordinated blood transfusion services with quality systems in all areas.
- At least two regional networks will have been established to strengthen the technical capacity of National Regulatory Authorities to assure the quality and safety of blood products and related *in vitro* diagnostic procedures.
- At least 10% of the countries in each WHO Region will have strengthened their technical capacity and improved the quality and safety of, and access to, appropriate diagnostic support and laboratory services.
- At least one training centre for improving diagnostic imaging services will be operational in each WHO Region.
- At least one country in each WHO region will have completed an assessment of the National Regulatory Authority in the area of medical devices and developed a follow-up strengthening plan.
- At least two countries in each WHO Region will be using EHT training materials and tools to improve the technical skills of health personnel in the safe use of essential emergency procedures and equipment at first referral level.



- 10% of countries in each WHO Region will have implemented a national policy and developed legislation to assure the ethics, safety and quality of cell tissue and organ transplantation practices.
- At least one country in each WHO Region will have piloted the WHO model list of essential medical devices.
- At least one country in each WHO Region will be implementing a national plan for the prevention of health care-associated HIV infection.
- At least 10 countries will have established appropriate information communications technology in their health care systems.

As a result of the changes of the way in which EHT will be operating:

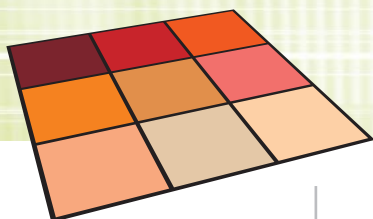
- **There will be a progressive reallocation of resources in support of country-prepared project proposals, aiming at achieving this level**
- **EHT will evolve as a needs-driven project-based unit in the sense that most of its activities will come out of proposals generated in Member States and not by WHO staff members.**

EHT will be one coherent programme across all levels in WHO and will have achieved improved efficacy through harmonized, transparent and streamlined procedures, focusing particularly on direct end-user benefits.

#### TOWARDS THE 2007 VISION: YEAR-BY-YEAR EHT MILESTONES AND INDICATORS

Pending the concrete submission of project proposals by Member States and projected activities for the development of support products, specific annual EHT milestones (targeted outputs) and indicators of the adoption of these outputs by Member States (indicators of outcomes) are shown on pages 17-19.

2004



**BLOOD TRANSFUSION SAFETY**

Milestones

Implementation of the Quality Management Programme in at least six additional countries

Indicators

Number of countries meeting defined criteria for basic quality systems



**BLOOD PRODUCTS AND RELATED BIOLOGICALS**

Milestones

Initiation of at least one Regional Network project to provide technical assistance to National Regulatory Authorities (NRAs) for control of blood products and related biologicals

Indicators

Number of National Regulatory Authorities involved in Regional Network activities

2005

2006

2007

Training programmes in all WHO Regions on establishing blood donor programmes based on voluntary non-remunerated donation

Training strategies and materials on testing for transfusion-transmissible infections introduced in 24 additional countries

Introduction of guidelines and tools to support the national coordination of blood transfusion services in at least six additional countries

Number of countries with 50% voluntary non-remunerated blood donation

Number of countries with 100% testing for HIV and HBV and 50% testing for HCV

Number of countries meeting defined criteria for national coordination of blood transfusion services

WHO Requirements for the collection, processing and quality control of blood, blood products and plasma derivatives updated

Second Regional Network of NRAs for control of blood products established

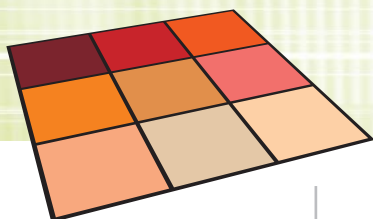
At least one WHO International Biological Reference Material established for blood safety and related *in vitro* diagnostic clinical technology or blood products and related substances used in the therapeutic field

Number of countries adopting the WHO Requirements

Number of NRAs for blood products involved in Regional Network activities

Number of countries involved in WHO collaborative studies and using WHO International Biological Reference Materials

2004



**LABORATORIES**

Milestones

Development of training materials and provision of training therapy in all regions on CD4 technologies for monitoring HIV/AIDS ARV

Indicators

Number of countries implementing CD4 technologies for monitoring HIV/AIDS ARV



**DIAGNOSTIC IMAGING**

Milestones

Initiation of research and development project with industry on digital World Health Imaging System for Radiology (WHIS-RAD)

Indicators



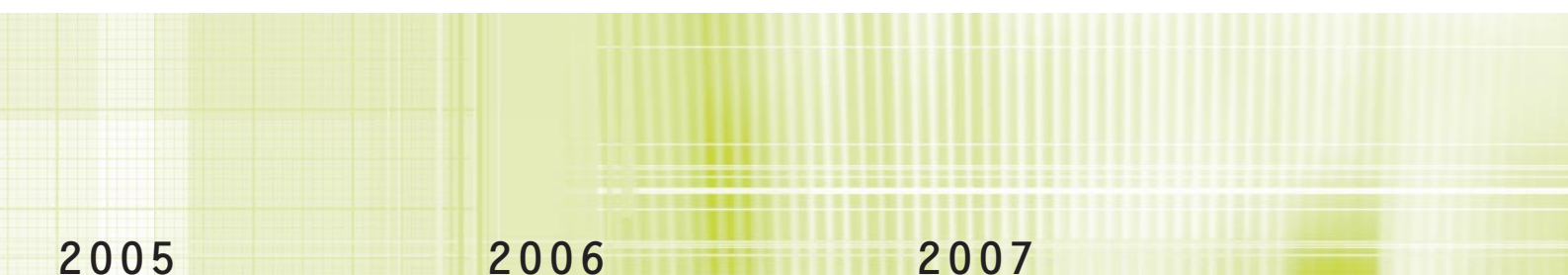
**MEDICAL DEVICES AND EQUIPMENT**

Milestones

Assessment of at least one National Regulatory Authority in the area of medical devices

Indicators

Number of countries with completed assessments and follow-up plans



## 2005

## 2006

## 2007

Technical information and guidelines on selection and procurement of diagnostics and equipment disseminated in all WHO Regions

Updated agreement for bulk procurement of HIV/AIDS and other diagnostic technologies at affordable prices

Expansion of external quality assessment schemes (EQAS) to an additional 30% of countries

Number of countries using the information and guidelines

Percentage savings made in US\$ as compared to general market prices

Percentage of laboratories with improved performances in EQAS and other assessment tools

Designation and support of at least 3 training centres for diagnostic imaging

Feasibility study on teleradiology systems undertaken in WPRO and AFRO

Introduction of training manuals in all WHO Regions

Number of countries meeting defined criteria for diagnostic imaging services

Recommendations on use of teleradiology

Number of countries using the manuals in training programmes

Piloting of Essential Healthcare Technology Package (EHTP) in selected countries in each WHO Region to match evidence-based interventions with equipment needs

Piloting of Essential Healthcare Technology Package (EHTP) in one additional country in each WHO Region

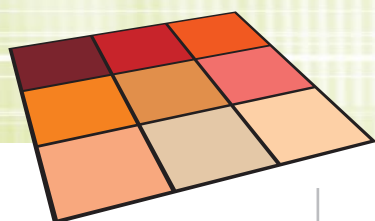
Completion of an assessment of the National Regulatory Authority in the area of medical devices and a follow-up strengthening plan

Number of countries using the EHTP

Number of countries using the EHTP

Number of countries with completed assessments and follow-up plans

2004



**DISTRICT  
HOSPITAL SURGERY**

Milestones

Introduction of training tools, including list of basic essential emergency equipment, in at least three countries

Indicators

Number of countries using training tools



**TRANSPLANTATION**

Milestones

Essential tools for a global network for surveillance of xenotransplantation in place

Indicators

Number of countries involved



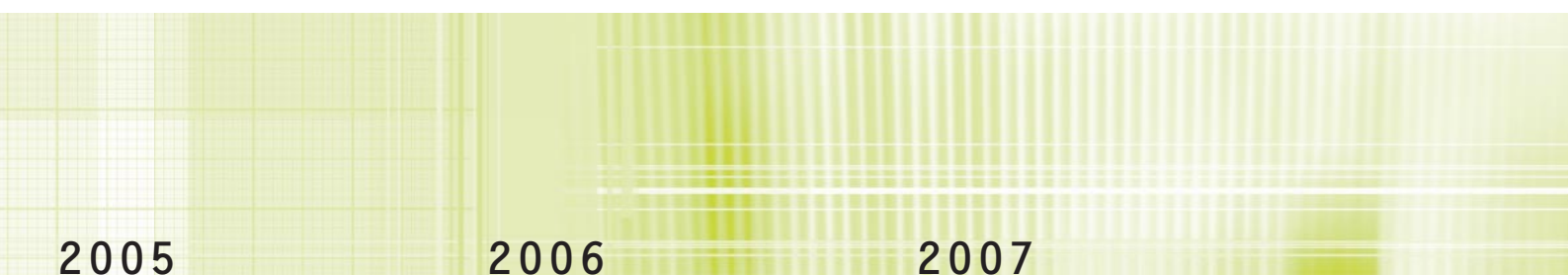
**LISTS OF ESSENTIAL  
EQUIPMENT**

Milestones

Completion of systematic review of existing lists of medical devices

Indicators

Evaluation report on existing lists



2005

2006

2007

Introduction of training materials for emergency care (including oxygen) at first referral level of care in at least three additional countries

Introduction of emergency care training materials in at least three additional countries

Introduction of revised manual on surgery and anaesthesia in district hospitals in at least six countries

Number of countries using training materials

Number of countries using training materials

Number of countries using revised manual on surgery and anaesthesia in district hospitals

Development of guidance material for legal framework, policy making, regulatory oversight and technical aspects of basic transplantation activities in low income countries

Development of guiding principles for ethics, safety and quality in transplantation and core standards for cell tissue and perfusable organ transplantation

Significantly increased number of countries with access to basic transplantation

Number of countries using guidance material

Number of countries using core standards as a basis for national standards

Number of countries with access to basic transplantation

Availability of the draft WHO model list of essential medical devices

Availability of final WHO model list of essential medical devices

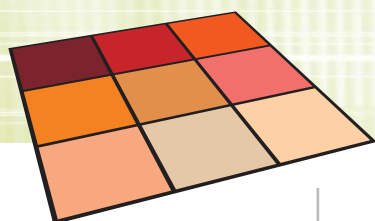
Piloting of WHO model list of essential medical devices in at least one country in each WHO Region

Review of draft model list by a meeting of experts

WHO model list of essential medical devices adopted by interested parties

Number of countries piloting the WHO model list of essential medical devices

2004



**PREVENTION OF HEALTH CARE-ASSOCIATED HIV INFECTION**

Milestones

Development of WHO model policy for the prevention of health care associated HIV infection

Indicators

WHO model policy approved by all regions



**INFORMATION TECHNOLOGY FOR HEALTH CARE**

Milestones

Availability of toolkit of EHT materials in CD-ROM format in all WHO Regions

Indicators

Number of countries using EHT Toolkit

2005

2006

2007

Availability of a WHO infection control manual

Availability of WHO model list of essential infection control equipment and supplies

Technical support in the implementation of a national plan for the prevention of health care-associated HIV infection in at least one country in each WHO Region

Number of countries using the WHO infection control manual

Number of countries using WHO model list of essential infection control equipment and supplies

Number of countries implementing a national plan for the prevention of health care-associated HIV infection

Availability of EHT e-health/telemedicine package in all WHO Regions

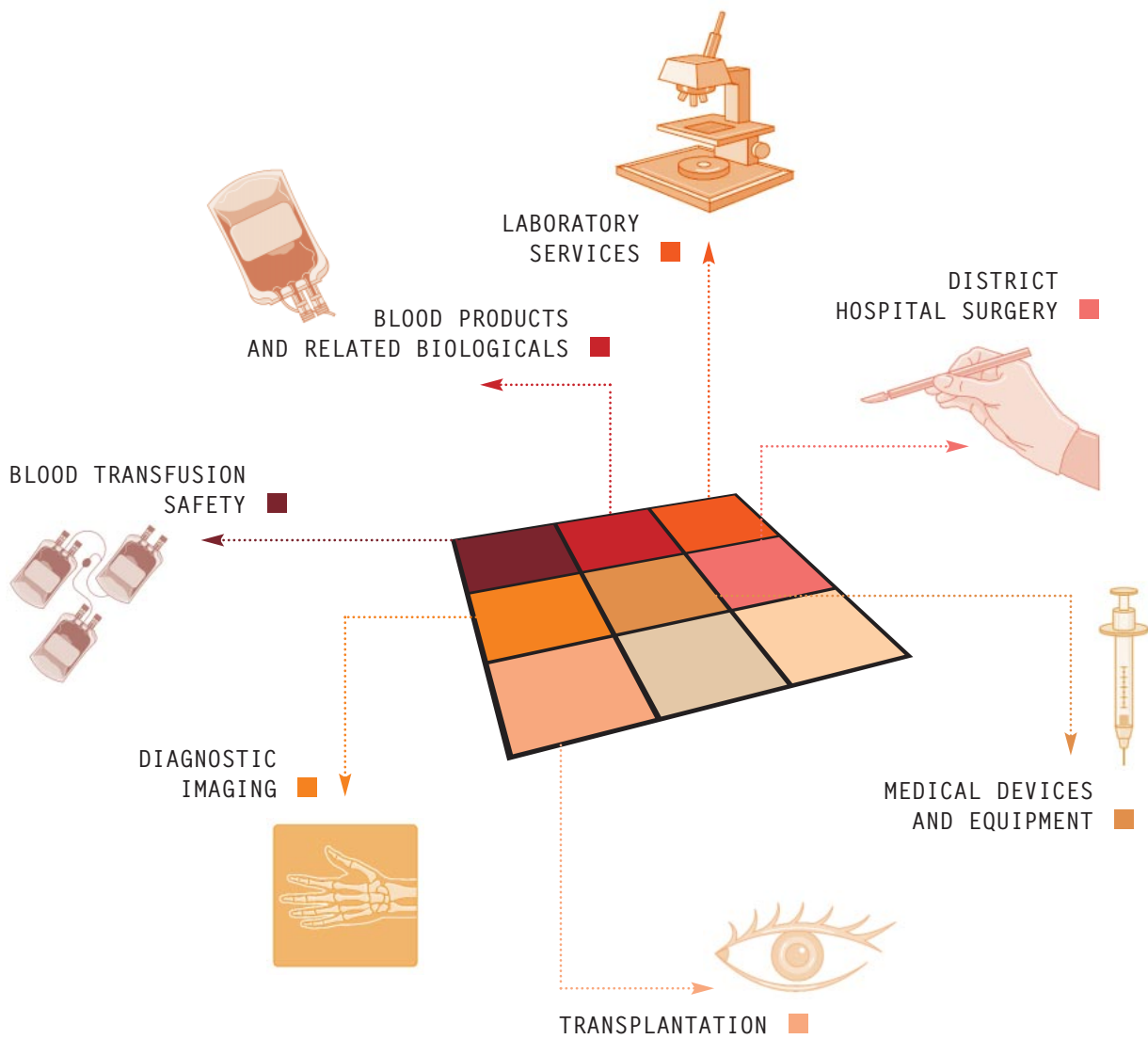
Availability of technical information and guidelines on establishing e-health/telemedicine in all WHO Regions

Availability of technical information and guidelines on selection and use of information technologies to improve health care in all WHO Regions

Number of countries using EHT e-health/telemedicine package

Number of countries adopting e-health/ telemedicine

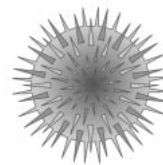
Number of countries using guidelines



MODEL LIST OF ESSENTIAL MEDICAL DEVICES ■



PREVENTION OF HEALTH CARE ASSOCIATED HIV INFECTIONS ■



INFORMATION TECHNOLOGY IN HEALTH CARE ■







World Health Organization

Essential Health Technologies  
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