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USE OF THE WHO CERTIFICATION SCHEME ON THE QUALITY OF PHARMACEUTICAL PRODUCTS MOVING IN INTERNATIONAL COMMERCE

*(study carried out from April 1993 to February 1994 in
15 importing countries, two exporting countries and
two international low-cost essential drugs supply agencies)*



Geneva, January 1995

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Preface

Safety, quality and efficacy of pharmaceutical products moving in international markets have always been of great concern to WHO. In this regard, WHO created the Certification Scheme on the Quality of Pharmaceutical Products Moving in International Commerce, among other mechanisms, as a means of assisting Member States to improve their national systems for quality assurance of drugs.

In 1981, the WHO Action Programme on Essential Drugs was established to cooperate with Member States, particularly developing countries, with the aim of making universally accessible the most needed drugs in support of primary health care.

In 1992, the two Divisions concerned with pharmaceutical products in WHO, the Action Programme on Essential Drugs and the Division of Drug Management and Policies, in cooperation with the USFDA and USAID, undertook a research project to determine to what extent the WHO Certification Scheme on the Quality of Pharmaceutical Products Moving in International Commerce was used and also to identify the needs and concerns of Member States with regard to the application and use of the Scheme. This report is the result of the research, carried out in 17 countries, in which over 40 technical officers participated.

It is hoped that the findings of the research will contribute to the wider understanding and use of the Scheme as well as the constant improvement of this very important tool for quality assurance of pharmaceutical products.

Dr Fernando S. Antezana
Assistant Director-General

Geneva, 12 December 1994

Executive Summary

A comprehensive system of quality assurance of pharmaceutical products must be based on a reliable system of evaluation and registration to establish safety and efficacy, analysis of the quality of the finished product, and confirmation through inspection that the manufacturing conditions fulfil requirements for Good Manufacturing Practices.

Such an ideal situation is only rarely met in practice, especially in developing countries, where financial resources and technical skills to set-up national quality assurance systems are not easily available.

In order to meet the needs of developing countries, the World Health Assembly adopted the World Health Organization (WHO) Certification Scheme on the Quality of Pharmaceutical Products Moving in International Commerce in 1975. The Scheme has been revised twice since 1975: once in 1988 and again in 1992. As at December 1994, 138 Member States, both importing and exporting pharmaceutical products, are signatories to the Scheme.

Twenty years after the Scheme was introduced it became evident that the exact formats of the Scheme, as recommended by WHO, had not yet been applied to most of the pharmaceutical products moving in international commerce. The Action Programme on Essential Drugs (DAP), in collaboration with the Division of Drug Management and Policies (DMP) and the Office of Health, US Agency for International Development, therefore, at the end of 1992, planned an independent assessment on the use of the Certification Scheme in drug procurement and registration systems in order to examine its effectiveness and enhance its wider use.

The assessment took place between April 1993 and February 1994 and involved 15 importing countries from the developing world, two exporting countries and two international supply agencies of low cost essential drugs. Over 40 professionals (12 international team leaders and 30 local team members) participated in the assessment.

The result of the assessment revealed that:

- out of 15 importing countries surveyed, only two use the Certification Scheme as recommended by WHO by requesting a Certificate of Pharmaceutical Product during drug registration. Four countries request a Certificate of Pharmaceutical Product in the procurement of drugs for the public sector. The rest request Free Sale certificates, GMP Certificates and Certificate of Analysis.
- most exporting countries have not standardized the text of their certificates and, therefore, do not issue a Certificate of Pharmaceutical Product as recommended by WHO.
- in one of the two exporting countries surveyed pharmaceutical products for export are not subject to control as are locally consumed pharmaceutical products, while in the second country 152 out of 8200 manufacturers meet the GMP requirements.

Two main reasons accounted for the Scheme not being used as recommended by WHO. These are:

- lack of adequate information on the part of importing countries about the mode of operation of the Scheme, its advantages over and differences from other certificates such as Free Sale certificate, GMP certificate and Certificate of Analysis issued by exporting countries.
- lack of commitment by importing and exporting countries partly due to the voluntary and non binding nature of the Scheme.

Most developing countries still lack their own quality assurance facilities to assess the quality of pharmaceutical products they import. Although the Scheme has certain limitations, if properly used it will allow developing countries to import pharmaceutical products with some degree of quality assurance. Importing countries, therefore, should use the Certification Scheme as recommended by WHO in order to get formal assurance about the registration status and quality of the pharmaceutical products they import. They should also endeavour to set up their own drug regulatory systems based on legislation and regulations, and the WHO Certification Scheme should be a prerequisite in drug registration and procurement. In order to promote effective implementation of the Certification Scheme, importing countries should familiarise registration and procurement personnel with the Certification Scheme through orientation and training programmes.

Exporting countries on their part should standardize the text of their certificate and issue a Certificate of Pharmaceutical Product when requested by importing countries as recommended by WHO. They should also subject pharmaceutical products for export to the same standards of control applied to locally consumed products.

In order to be able to ensure the safety, efficacy and quality of pharmaceutical products they import, WHO should assist developing countries in their efforts to develop their own drug quality assurance systems. The Organization should also embark on a rigorous informational and promotional programme to enable countries to effectively use the Scheme. Such a programme should include regional workshops and seminars that involve representatives from regulatory authorities of both importing and exporting countries. The operation of the Scheme needs to be assessed from time to time in order to evaluate to what extent Member States, importing as well as exporting, are applying the Scheme as recommended by WHO. Moreover, since pharmaceutical product flows in the international market change from time to time, it will be necessary to initiate selected studies as a background for proposals on the use of the Scheme in situations where products are re-exported.

1. INTRODUCTION

1.1 Background

International trade in pharmaceutical products encompasses many thousands of products. The value of the global pharmaceutical market is estimated to exceed US\$ 200 billion per year. Some 20-30% of this amount involves international trade, while the remaining amount consists of drugs that are produced and consumed within individual countries. The dependence on imported pharmaceutical products differs between countries. In developing countries, particularly the least developed, the dependence on the importation of pharmaceutical products is much greater. In many cases it may reach 100%, as with Central African Republic, Fiji, Malawi, and Papua New Guinea, included in the present study.

The movement of pharmaceutical products in international commerce necessitates various safeguards on the part of importing countries and institutions to assure that pharmaceutical products are safe, effective, and of adequate quality when received.

The approach to quality assurance of pharmaceutical products includes a number of elements: a decision that the product is effective and safe; assurance of appropriate manufacturing conditions for its production and confirmation that these conditions fulfil requirements for Good Manufacturing Practices (GMP); and assurance of the quality of every batch through appropriate analytical testing. In the case of imported products, additional analytical testing is done to confirm that the batch received did not deteriorate in transit.

Looking at the administrative side, quality assurance of an imported product would ideally include the following elements:

- a) registration of the product in the country of manufacture;
- b) approval of manufacturing conditions by pharmaceutical inspection of the manufacturing plant;
- c) quality analysis of a batch of the product by the manufacturer's laboratory before the product is released;
- d) licensing of the product in the country of importation;
- e) quality analysis of a sample of the product taken from every batch after receipt of goods at the country of destination.

Such an ideal situation is only rarely met in practice as it would require the existence and proper operation of regulatory authorities in both the exporting and importing countries and a considerable expenditure of resources. In most developing countries, the necessary resources are non-existent. The approaches used in practice by the majority of importing countries are, therefore, aimed at obtaining at least a partial assurance that imported products are licensed and approved for use in the country of origin, and are of acceptable quality.

1.2 WHO Certification Scheme

In response to the need of developing countries to receive an assurance about the status and quality of imported products, the World Health Assembly (WHA) adopted in 1969, in resolution WHA22.50, requirements for "Good Practices in the Manufacture and Quality Control of Drugs" (GMP) (annex 1), together with the first version of the Certification Scheme. The Scheme provided for: a) the exporting country to establish, after inspection, an up-to-date list of manufacturers complying with GMP which could be exchanged between governments; and b) the issuance of batch certificates by the responsible health authorities of the exporting country.

Consultations with governments showed that neither the maintenance of lists of manufacturers, nor the issuance of batch certificates by authorities were feasible in practice. A revised version of the Scheme entitled "WHO Certification Scheme on the Quality of Pharmaceutical Products Moving in International Commerce" was thus submitted to the WHA in 1975. The revision was adopted in resolution WHA28.65 (annex 2). The 1975 version of the Scheme is based on certification by the responsible health authorities of: a) the registration status of a particular product in the exporting country; and b) of the GMP compliance of the responsible manufacturer. The issuance of a certificate for individual batches is relegated to the manufacturer.

After over a decade of experience with the scheme, it was felt that the 1975 version of the Scheme required further changes. It was revised and expanded in 1988 by the WHA in resolution WHA41.18. A modified form of the Certificate of a Pharmaceutical Product was attached to the resolution, superseding the 1975 form of this Certificate. The amendments of 1988 brought within the realm of the Scheme drug substances and finished dosage forms intended for human use, as well as a veterinary product administered to food producing animals. They also required the competent authority in the exporting country to provide copies of all approved product information and labelling as determined by the product license issued by the regulatory authority in the country of manufacture (annex 3).

In 1992, the WHA, in its resolution WHA45.29, endorsed the "Guidelines for implementation of the WHO Certification Scheme". This also contained a modified form for a Certificate of a Pharmaceutical Product which superseded the 1975 Certificate of a Pharmaceutical Product. Forms for a Statement of Licensing Status of Pharmaceutical Product(s) and for a Batch Certificate of a Pharmaceutical Product were also attached to the Guidelines (annex 4). In this resolution the WHA established a period of five years to evaluate and revise the proposed forms for the various certificates mentioned.

As at December 1994, the WHO Certification Scheme has been accepted by health authorities in 138 countries, both exporting and importing pharmaceuticals, which indicates their willingness to share the responsibility for the quality of drugs moving in international commerce.

The Scheme offers to importing countries information about:

- a) the status of the pharmaceutical product;
- b) the status of the manufacturer of the pharmaceutical product;
- c) the quality of individual batches of the exported pharmaceutical product;
- d) product information as approved in the country of export.

1.3 Types of Certificates

The different types of certificates developed by WHO over the last two decades under the Certification Scheme, as well as examples of other certificates issued by drug regulatory authorities in the exporting countries are described below.

1.3.1 *WHO-type Certificate*

- a) Certificate of Pharmaceutical Product (WHO 1975 type)

The 1975 version of the WHO-type Certificate of a Pharmaceutical Product is a certificate to be issued by a competent authority (regulatory authority) of the exporting country stating:

- (i) that the product has been authorized to be placed on the market for use in the country including the number of permit and date of issue, or that the product has not been authorized to be placed on the market for use in the country and the reasons why;
- (ii) that: a) the manufacturing plant in which the product is produced is subject to inspections at suitable intervals; and b) the manufacturer conforms to GMP requirements as recommended by WHO in respect of products to be sold or distributed within the country of origin or to be exported.

The certificate combines (i) and (ii) above in a single document (see annex 2).

- b) Certificate of a Pharmaceutical Product (WHO 1988 type)

The 1988 format of the Certificate of a Pharmaceutical Product is similar to the 1975 version, but in addition the competent authority of the exporting country is required to provide copies of the complete text of all labelling and product information which is authorized in the country of origin (see annex 3).

- c) Certificate of a Pharmaceutical Product (WHO 1992 type)

This is intended for use by the competent authority of an importing country in two situations: a) when the product in question is under consideration for a product license that will authorize its importation and sale; and b) when administrative action is

required to renew, extend, vary or review such a license (see annex 4). The certificate provides information on the following:

- i) whether a product is licensed to be placed on the market, and if not, the reasons why;
 - ii) whether the applicant manufactures the dosage forms, packages and/or labels a finished dosage form manufactured by an independent company, or is involved in none of the above;
 - iii) if the manufacturer of the product has been inspected and the periodicity of inspection;
 - iv) if the certificate is provisional, pending technical review;
 - v) whether the information submitted by the applicant satisfies the certifying authority on all aspects of the manufacture of the product undertaken by another party;
 - vi) states the names of the importing and exporting (certifying) countries.
- d) Statement of Licensing Status (WHO 1992 type)

This is an attestation issued by a national regulatory authority of an exporting country stating that a license has been issued for a specified product or products for use in the exporting country. It is intended for use by importing agents when considering bids made in response to an international tender and is useful only to facilitate the screening and preparation of information (see annex 4).

- e) Batch Certificate (WHO-type)

A certificate issued by either the manufacturer or by the competent authority of an exporting country confirming that the quality of a specific batch of the product conforms to specifications approved at the time of issuance of product license by the competent authority in the exporting country. The batch certificate indicates the name, dosage form, batch number, expiry date, storage condition of the product as well as a reference to the Certificate of a Pharmaceutical Product (see annex 4).

1.3.2 Other Certificates (non WHO-type)

- a) Free Sale Certificate

A certificate issued by a national regulatory authority of an exporting country based on national legislation confirming that the product is freely sold in the country but without any indication that the product is evaluated for safety and efficacy and is registered for use in the country.

b) GMP Certificate

A certificate issued by a national regulatory authority of an exporting country confirming that the manufacturer complies with GMP requirements.

c) Analytical Batch Certificate

A certificate issued by a manufacturer confirming that the quality of a specific batch corresponds to the specifications for the product at the time when the batch was released. It contains results of analytical tests but does not mention the relevant Certificate of a Pharmaceutical Product issued by the regulatory authority of the exporting country as recommended by WHO.

2. RATIONALE AND OBJECTIVE OF THE ASSESSMENT

During the last two decades WHO has promoted the use of the WHO Certification Scheme particularly by importing countries of the developing world who, for various reasons, may be vulnerable to problems associated with pharmaceutical products that do not meet specifications. These countries often do not have the national laboratories required to verify the quality of drugs.

Since the introduction of the Scheme, there have been important changes in the nature and scope of the international market in pharmaceutical products. Many more countries are now involved in the export of drugs so that there is no longer a limited number of primary sources in a few major industrial countries. In addition, the opportunities for re-packaging and labelling have grown to further complicate the issuance of a Certificate of a Pharmaceutical Product by a national regulatory authority.

It has also become clear that the exact forms of the WHO Certification Scheme, as described above, have not yet been applied to most of the pharmaceutical products moving in international trade. When this is coupled with the serious problems of sub-standard drugs moving in international commerce, particularly to developing countries, it is clearly important to assess the practical application of the Certification Scheme.

The Action Programme on Essential Drugs (DAP), with the financial support of USAID's Office of Health, therefore, decided to carry out an independent assessment of the use of the Certification Scheme in drug procurement/supply systems and current mechanisms of drug quality assurance, in order to examine its effectiveness and enhance its wider use.

3. ACTIVITIES UNDERTAKEN: Preparations and Method of Work

In order to realize the above objectives, an informal meeting was held in DAP from 30 September to 1 October 1992 with the participation of DAP, the Division of Drug Management and Policies (DMP), United States Food and Drug Administration (FDA) specialists, and independent experts dealing in particular with the issue of quality assurance of imported pharmaceuticals.

The meeting concluded that an assessment in selected countries of the extent of the actual application of the Scheme and of pertinent administrative practices could facilitate the promotion of the Scheme and thus improve the quality assurance of imported pharmaceuticals.

The meeting defined the general objective of the proposed multi-country study to be based on reports of missions to a number of countries. It was agreed that the study had to focus on essential drugs imported by developing countries, and on the actual use of the Certification Scheme as an instrument for the quality assurance of those products.

The selection of countries to be included in the study was based on criteria considered during the meeting. Priority was given to developing countries that were importing pharmaceuticals, had weak (or in a few cases strong) drug regulatory systems, were willing to participate in the assessment, and had need of the Certification Scheme. The following 15 countries were selected: a) from the African region: Benin, Cameroon, Central African Republic, Kenya, Malawi and Tanzania; b) from the American region: Ecuador and Jamaica; c) from the Eastern Mediterranean region: Tunisia and Yemen; d) from the South-East Asian Region: Myanmar and Sri Lanka; and e) from the Western Pacific region: Fiji, Malaysia and Papua New Guinea.

Communications were initiated with the countries by mid-December 1992 through WHO Regional Offices and WHO Representatives, informing them about the missions and requesting their concurrence with the proposal. By the end of March 1993, all 15 countries indicated above had agreed to participate in the study.

The protocol and report outline to be used by the missions were prepared jointly by DAP, DMP, and FDA, and were amended by a consultant (annex 5). Their application was further discussed during a preparatory briefing session of international team members, in Nairobi, in April 1993.

The mission teams for country visits were composed of a team leader (international), a team member (international, preferably from the region) and two local team members (annex 6). The international team members were selected from among specialists who were known to have adequate experience in pharmaceutical administration and drug supply matters.

Because of a need to obtain a global overview of the Certification Scheme operation through the project in a uniform manner, a briefing session was organized in Nairobi, Kenya from 14-16 April 1993. The participants included seven international team members and the representatives of DAP and DMP. The main discussion during the briefing pertained to the contents of the mission protocol and the ways of obtaining specific answers in the course of country visits. As a result, a number of modifications were introduced into the text of the protocol to better explain individual questions.

The involvement of national experts in the mission teams was an essential element of the project. It was considered that in this way, the study would involve professionals with appropriate access to the necessary local data, and therefore, enable much of the preliminary work to be carried out before the arrival of the international team, thus shortening the period of stay in the country.

The appointment of local mission members was carried out with the assistance of the WHO Representatives in the countries concerned. Information material consisting of a letter requesting their collaboration and a selection of background material on the WHO Certification Scheme was sent to the national experts together with the draft protocol to be used during

their missions. In the 15 countries included in the project, 30 persons altogether served as local team members.

The country missions took place as follows: in the African countries, from 19 April to 7 May 1993; in countries of the American region, from 31 May to 11 June 1993; in the Eastern Mediterranean region, from 19 to 23 April and 17 to 23 July 1993; in the South-East Asian countries, from 18 to 23 May and 5 to 9 July 1993; and in the Western Pacific countries, from 24 May to 11 June 1993.

Protocols for the assessment of exporting countries and international supply organizations were prepared jointly by the staff of DAP and DMP together with a group of consultants (annexes 7 and 8). It was agreed that each mission should stay about one week (five to eight working days) in a country, but that visits to international supply organizations should be shorter.

Assessment of exporting organizations and countries took place as follows: IDA from 5-6 October 1993; UNICEF from 7-8 October 1993; France from 24-31 October 1993; and India from 14-26 February 1994. Reports submitted by mission leaders were transferred to the study instruments developed for storage and easy retrieval of data (annex 9).

4. ANALYSIS OF RESULTS FROM IMPORTING COUNTRIES

4.1 Pharmaceutical Import and Consumption

In all countries visited the vast majority of pharmaceutical products, usually over 90%, was imported. In Malaysia, the value of imported drugs was 70% of the total consumption with the rest from local production using imported materials. Exporting countries were usually the major industrial nations with a predominance of Australia, Canada, China, France, Germany, India, the Netherlands, South Africa, Switzerland, UK and USA. However, other countries, such as Egypt, Hong Kong, Jordan, Malaysia, Singapore and Thailand, were also noted as exporters. The estimated annual value of pharmaceutical imports for the 15 countries in 1992 ranged from US\$ 5 million for Fiji to US\$ 150 million for Malaysia.

In all countries, importation of drugs was through both the public and private sector with the public sector varying from 2% to 80% of the total imports for 1992. In addition, for some countries there was reported to be appreciable illicit importation of pharmaceutical products (annex 10).

The consumption of pharmaceuticals by the private sector during 1992 was, on the whole, higher than consumption by the public sector.

The public sector drug budget for the same year ranged from US\$ 1 million for Myanmar to US\$ 49 million for Malaysia. The contribution of national resources ranged from 10% for Fiji to 100% for Malaysia, Sri Lanka and Tunisia. External assistance varied from 0% for the three countries, Malaysia, Sri Lanka and Tunisia to 67% for Central African Republic.

Table 1 summarizes the information on pharmaceutical importation and consumption by the countries.

Table 1. Estimated pharmaceutical import and consumption in 1992 (US\$ million)

Country	Total Import in 1992 US\$ million	Consumption in 1992, US\$ million			Public sector drug budget in 1992 US\$ million
		Public sector	Private sector	NGOs	
Benin	18.96	2.90	24.86	NA	4.00
Cameroon	63.00*	3.60**	112.00**	7.20**	8.00**
Central African Republic	16.27	1.24	9.05	0.01	1.72
Ecuador	140.80	2.50	150.10	NA	3.40
Fiji	5.00	3.00	2.00	0.40	3.40
Jamaica	19.50	3.00	20.50	NA	4.90
Kenya	125.50	39.80	52.70	10.80	39.80
Malawi	9.00	5.70	3.30	NA	5.70
Malaysia	150.00	48.00	172.00	NA	49.00
Myanmar	20.00	5.00	15.00	0.50	1.00
Papua New Guinea	15.00	13.00	2.50	NA	12.00
Sri Lanka	30.00	20.00	70.00	NA	13.00
Tanzania	38.20	11.50	NA	NA	7.10
Tunisia	112.79	29.00	131.00	NA	27.00
Yemen	68.63	18.80	46.65	0.18	20.80

Figures extracted from the country reports by the missions.

* Figure for 1991.

** Figures for 1989.

NA Data not available.

4.2 National Drug Policy and Essential Drugs List

Of the 15 countries assessed, Benin, Kenya, Malawi, Myanmar, Tanzania, Tunisia, and Yemen have written and approved national drug policies covering aspects related to drug regulatory control, registration, procurement and quality assurance. A plan for the implementation of the drug policy exists in Benin, Ecuador, Malawi, Tanzania, Tunisia, and Yemen.

In those countries where a written and approved drug policy does not exist, one or more elements of a national drug policy e.g. regulatory control, drug registration, drug procurement, and quality assurance are being implemented. Similarly, all countries recognize the importance of an essential drugs list and use these lists for procurement in the public sector. The number of drug substances in the national lists varied from 120 to 670.

Table 2 shows the existence of a national drug policy, essential drugs list and drug legislation.

Table 2. Existence of national drug policy, national essential drugs list and legislation

Country	National Drug Policy and date introduced	Essential Drugs List	Legislation
Benin	National Drug Policy, 1991*	National Essential Drugs List, 1990	Several drug regulations exist
Cameroon	Only elements are used**	Liste Nationale des Médicaments Essentiels Utilisés dans les Formations Sanitaires, 1990	Law No. 90 035 of 10 August 1990
Central African Republic	Only elements are used**	Not official	Being developed
Ecuador	Decreto Ejecutivo 2007, 26 December 1990*	National Essential Drugs List, 1992	Code of Health, Official Register No. 158, 8 February 1977
Fiji	Only elements are used**	Essential List of the Government Pharmacy, 1991	Pharmacy and Poisons Act, 1938 as Amendment 1983
Jamaica	Only elements applied**	VEN List, 1986	Food and Drugs Act 1964, Pharmacy Act 1966, Food and Drug Regulations 1974 and Pharmacy Regulations 1974
Kenya	A draft national drug policy, 1993***	A draft Essential Drugs List, May 1993**	Pharmacy and Poisons Act 1957. Revised 1972 and 1989
Malawi	Malawi National Drug Policy, 1991*	Malawi Essential Drugs List, 1991	Pharmacy, Medicines and Poisons Act, 1978 and Regulation, 1990
Malaysia	Only elements are used**	Ministry of Health Drugs List, 14 May 1983	Sale of Drug Act No 368, 1952, revised 1989
Myanmar	National Drug Policy, February 1991*	Essential Drugs List, June 1989	National Drug Law, 1992
Papua New Guinea	Only elements are used**	Medical Stores Catalogue, 7th edition, 1988	Therapeutic Substances and Cosmetics Act, 1987
Sri Lanka	Elements are being used**	Essential Drugs List, 1st Ed. 1985, revised 1988.	Cosmetics, Devices and Drugs Act No. 27, 1980, Drug Regulations No. 38, 1984
Tanzania	Tanzanian National Drug Policy, 1991*	National Essential Drugs List, 1991	Pharmaceutical and Poisons Act No. 9, 1978
Tunisia	8th Final Report of Health Plan, September 1991*	National Essential Drugs List, September 1991	Several laws exist

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Yemen	National Drug Policy of Yemen, April 1993*	Yemen Essential Drugs List, April 1991	Several laws and decrees exist
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* A written and approved national policy covering all aspects related to drug regulatory activities exists.

** Written national drug policy does not exist as such but elements of a national drug policy are being implemented.

*** A national drug policy entitled “The Kenya National Drug Policy” was adopted in July 1994.

Drug legislation exists in all the countries except in Central African Republic where it was in the process of being developed at the time of the mission. Specific regulations relating to drug registration exist in Benin, Cameroon, Ecuador, Jamaica, Kenya, Malawi, Malaysia, Sri Lanka, Tanzania, Tunisia, and Yemen, while Malaysia, Tanzania, and Tunisia also have specific regulations relating to drug quality.

4.3 Infrastructure

The main infrastructures necessary for regulatory and analytical control of drugs, namely, registration, inspection, and quality control are present to a varying degree in eight countries visited: Cameroon, Ecuador, Jamaica, Kenya, Malaysia, Sri Lanka, Tunisia and Yemen (Table 3). The remaining seven countries are deficient in one or more of the above structures. All the countries have infrastructure for public and private sector drug procurement/import. In Tunisia, however, importation of drugs is a state monopoly. Two countries, Central African Republic and Papua New Guinea, have no drug regulatory authorities to control the quality of drugs, but both countries import drugs through the public and private sector.

Table 3. Existence of infrastructure for drug regulation, procurement and quality control

Country	Regulatory body	Registration unit	Public procurement sector	Private procurement sector	Quality control laboratory	Inspection service
Benin	YES	YES	YES	YES	NO	YES
Cameroon	YES	YES	YES	YES	YES	YES
Central Arican Rep.	NO	NO	YES	YES	NO	YES
Ecuador	YES	YES	YES	YES	YES	YES
Fiji	YES	NO	YES	YES	YES	NO
Jamaica	YES	YES	YES	YES	YES	YES
Kenya	YES	YES	YES	YES	YES	YES
Malawi	YES	NO*	YES	YES	NO*	NO*
Malaysia	YES	YES	YES	YES	YES	YES
Myanmar	YES	YES	YES	YES	YES	NA
Papua New Guinea	NO	NO	YES	YES	YES	NA
Sri Lanka	YES	YES	YES	YES	YES	YES

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Tanzania	YES	NO	YES	YES	YES	NO
Tunisia	YES	YES	YES	YES**	YES	YES
Yemen	YES	YES	YES	YES	YES	YES

Data extracted from the country reports by the missions.

NA= Data not available

* Started operation after the assessment.

** State owned private sector.

4.4 Functioning of Bodies Responsible for Regulation, Procurement and Quality Assurance

4.4.1. Registration

Registration of drugs is practised by ten countries, Benin, Cameroon, Ecuador, Jamaica, Kenya, Malaysia, Myanmar, Sri Lanka, Tunisia and Yemen that have infrastructure for registration. Drugs imported by both private and public sector are registered in Ecuador, Jamaica, Malaysia, Sri Lanka, Tunisia and Yemen. In Benin, Cameroon and Kenya only drugs imported by the private sector are registered, while in Myanmar registration has not been extended to the private sector. Drugs are not subject to registration in Central African Republic, Fiji, Malawi, Papua New Guinea and Tanzania (Table 4).

Table 4. Practice of drug registration and types of certificates requested

Country	Registration unit exists	Certificates requested	% of drugs on the market registered
Benin	YES	Free Sale	100
Cameroon	YES	Not indicated	90
Central African Republic	NO	NO	0
Ecuador	YES	Free Sale	98
Fiji	NO	NO	0
Jamaica	YES	Free Sale*	98
Kenya	YES	Free Sale	50
Malawi	NO**	NO**	0**
Malaysia	YES	Product Certificate or GMP and Free Sale	100
Myanmar	YES	Product Certificate	100/50***
Papua New Guinea	NO	NO	0
Sri Lanka	YES	GMP and Free Sale	100
Tanzania	NO	NO	NO
Tunisia	YES	Batch and Free Sale	100****
Yemen	YES	GMP and Free Sale	70

* Certificate of Pharmaceutical Product is now routinely requested.

** Registration has been introduced since the assessment but information on the type of certificate requested and the number of drugs registered is not available.

*** In Myanmar all drugs imported by the CMS are registered while the majority of those imported by the Medicines and Medical Equipment Enterprise are partially registered. 50% of the drugs imported by the private sector are registered.

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**** In Tunisia importation of drugs is a state monopoly. The Pharmacie Centrale de Tunis is responsible for the importation of drugs for both the public and private sectors.

The percentage of drugs on the market which are registered with 10 countries are: 100% in the private sector in Benin; 100% in Malaysia, Tunisia and Sri Lanka in both private and public sector; 98% in Ecuador and Jamaica in both private and public sector; 90% in the private sector in Cameroon; 75% in the public sector in Myanmar; 70% in both sectors in Yemen and 50% in the private sector in Kenya. Donated drugs and drugs imported by nongovernmental organizations are not registered in all countries.

There is an appreciable illicit market of pharmaceuticals in Benin, Cameroon, Kenya, and Yemen.

4.4.2 *Public and private sector procurement*

In many developing countries the supply of drugs for the public sector is centralized through a government drug procurement agency. Even in countries where the private drug supply covers a considerable portion of the drug market, for example, Malaysia and Myanmar, drug procurement for the public sector is carried out through formal procurement procedures. All 15 countries visited have an infrastructure for the procurement of drugs for the public sector. A majority of the countries procure drugs for the public sector by means of open and restricted tender and through direct purchase from manufacturers/agents. The rest use negotiated procurement and direct purchase methods to buy drugs from wholesalers abroad and in the countries. They also receive drugs in kind from donors.

In 1992, 13 countries procured drugs from manufacturers/agents for the public sector and the number of products purchased ranged from ten for Central African Republic to 2000 for Sri Lanka. In addition, eight countries bought drugs from wholesalers abroad and the quantity varied from five to 347. The suppliers were manufacturers located in Australia, Austria, Belgium, Canada, China, Cyprus, Czechoslovakia, Denmark, France, Germany, Hong Kong, Hungary, India, Italy, Japan, Kenya, Malaysia, the Netherlands, Puerto Rico, Panama, Republic of South Africa, Thailand, UK, USA, as well as international suppliers of low cost essential drugs, IDA and UNICEF.

In the private sector, with the exception of Tunisia where importation of pharmaceuticals is a state monopoly, the remaining countries have private importers actively engaged in the importation and distribution of drugs. In 1992, ten countries procured drugs directly from manufacturers and wholesalers abroad and the number of products ranged from 450 to 3000. Three countries used negotiated procurement. The suppliers were the same manufacturers and international supply agencies mentioned above.

4.4.3 *Quality control of imported drugs*

To a varying extent, drugs procured in the public sector by the countries are subject to analytical control (**Table 5**). For example, in Malaysia, Sri Lanka and Tunisia, where there is an established analytical programme for the quality control of pharmaceutical products, an appreciable number of samples of products were tested. In the remaining countries only a few samples were sent for testing. Quality testing was not done at all in Malawi and Central African Republic. Jamaica, Malaysia and Tunisia were found to have clearly set criteria for the selection of samples for regular quality control. In most cases, samples were collected

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and sent for analysis after receipt and payment and following complaint. Few countries collected and sent samples at the time of bidding. The quality control testing was done locally by 11 countries. One country, Benin, sent samples abroad for testing.

The quality of drugs imported by the private sector is tested by drug regulatory authorities in Ecuador, Jamaica, Kenya, Malaysia, Tanzania, Tunisia, and Yemen. In Sri Lanka, products are tested by importers. The rest of the countries do not carry out quality control tests on drugs imported by the private sector. A system for health personnel to report complaints regarding drug quality exists in only Malaysia, Sri Lanka and Tunisia.

Table 5. Quality control of drugs procured in public sector in 1992

Country	No. of products procured from manufacturers in 1992	No. of products procured from wholesalers	No. of samples sent for testing	% Passed test
Benin	26	NA	5	100
Cameroon	NA	NA	32	91
Central African Republic	10	NA	0	0
Ecuador	110	NA	36	75
Fiji	400	NA	5	NA
Jamaica	250	NA	51	80
Kenya	58	NA	24	71
Malawi	80	115	NO	NO
Malaysia	NA	347	924	86
Myanmar	62	164	Few	NA
Papua New Guinea	342	14	3	NA
Sri Lanka	2000	NA	600	90
Tanzania	104	8	175	70
Tunisia	450	NA	741	78
Yemen	201	5	297	96

Data extracted from country reports submitted by the missions.

NA= Data not available.

4.5 Operation of the WHO Certification Scheme

All 15 countries assessed are signatories to the WHO Certification Scheme and the last date of acceptance was 1986.

4.5.1 Use of the Scheme in Drug Registration

A drug regulatory agency has as one of its activities the compilation of a list (a register) of pharmaceutical products that are approved for use on the domestic market. Products that are placed on the list are licensed to individual manufacturers after they have made a suitable application to the regulatory agency. In an importing country the decisions of the drug regulatory agency have to be based to a large extent on information which it receives from the applicant. In the case of imported products, the information supplied by applicants comes from abroad (either directly or through a trade representative) and should be validated by documentary evidence, which is usually done by requesting various certificates.

The survey showed that the receipt of a Certificate of a Pharmaceutical Product as recommended by WHO is a prerequisite for drug registration in only Malaysia and Myanmar (**Table 4**). Out of the remaining 13 countries, eight request one or two of the following national certificates: Free Sale certificate, GMP certificate and Batch certificate. The requirement for a Certificate of a Pharmaceutical Product and other certificates is laid down in registration guidelines. Five countries do not request any kind of certificate since they do not have a drug registration programme.

The study also showed that there is an extensive use by most countries of Free Sale certificates. In Sri Lanka and Yemen, GMP certificates are requested in addition to Free Sale certificates to give additional assurance of product quality.

Review of the batch certificates received by the countries visited showed that most of the certificates obtained do not refer to the Certificate of a Pharmaceutical Product as recommended by WHO. There is also confusion concerning the nature of a WHO-type batch certificate, and of the difference from an analytical batch certificate.

4.5.2 Use of the Scheme in Procurement

Information gathered during the missions shows that a Certificate of a Pharmaceutical Product is laid down as a prerequisite in procurement guidelines of four countries: Fiji, Malaysia, Myanmar and Papua New Guinea. The rest of the countries demand one or more of the following: GMP Certificate, Batch Certificate, Free Sale Certificate, Certificate of Analysis, Certificate of Origin (**Table 6**).

Two countries, Fiji and Papua New Guinea used a Certificate of a Pharmaceutical Product in a restricted manner when the supplier of the product was not previously known to the procuring agency. The requirement is waived in respect of well established international pharmaceutical manufacturers.

The information received also shows that a Certificate of a Pharmaceutical Product was received for 15% of the products for Fiji and 3% of the products for Papua New Guinea included in the 1992 tenders.

In Myanmar only registered drugs are procured for the public sector. In 1992, 84% of the products procured in the public sector had a Certificate of a Pharmaceutical Product.

The above findings indicate that the Scheme is being used as recommended by WHO by only four countries in the procurement of drugs for the public sector. The remaining 11 countries use other certificates issued by exporting countries to assure the quality of drugs they procure.

The study also showed that WHO-type certificates (Certificate of a Pharmaceutical Product and Batch Certificate) supplied to drug registration authorities in importing countries were consulted by public sector procurement agencies in only one country; an indication of lack of linkage between procurement and drug regulatory authorities.

In the private sector, the level of drug quality control is less demanding than for the public procurement in the countries visited. A Certificate of a Pharmaceutical Product is requested in the private sector only by Malaysia. Benin, Ecuador, Jamaica, Kenya, Sri Lanka, Tunisia and Yemen request one or more of the following certificates: Batch Certificate, Free Sale Certificate and GMP Certificate.

Table 6. Certificates requested in public and private sector drug procurement

Name of country	Public sector certificates requested	Private sector certificates requested
Benin	Certificate of analysis from manufacturers	Certificate of authorization of sale in the country of origin
Cameroon	Certificate of analysis	No
Central African Republic	No	No
Ecuador	Free Sale	Free Sale
Fiji	Product Certificate and Batch Certificates	No
Jamaica	Free Sale and Batch Certificate	Free Sale and Batch Certificate*
Kenya	Evidence of registration in the country of origin	Free Sale Certificate
Malawi	Certificate of analysis	NA
Malaysia	Free Sale and GMP Certificates or Certificate of a Pharmaceutical Product	Free Sale and GMP Certificate or Certificate of a Pharmaceutical Product
Myanmar	Product Certificate	No
Papua New Guinea	Product Certificate and Batch Certificate	No
Sri Lanka	Free Sale and Batch Certificate	Free Sale and Batch Certificate
Tanzania	GMP and Quality Control Certificate	No
Tunisia	Free Sale and Batch Certificate	Free Sale and Batch Certificate
Yemen	Certificate of origin and Certificate of analysis	Free Sale and GMP Certificate

Data extracted from the country reports of the missions.

NA= Data not available

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* Certificate of a Pharmaceutical Product is routinely requested after the assessment.

5. ANALYSIS OF RESULTS FROM EXPORTING COUNTRIES

5.1 France

Currently, there are 342 licensed original manufacturers, 35 unlicensed contract manufacturers and 12 manufacturers attached to pharmacies in France. Pharmaceuticals are produced by both contract and original manufacturers.

Regulation of pharmaceuticals is carried out at central and regional level. Evaluation and registration of products, licensing of establishments, issuance of import permit and product certificate and GMP certificate, as well as quality control activities, are carried out at the central level. Regional agencies do pharmaco-vigilance and inspection services jointly with the central authorities.

Manufacturing plants intending to export pharmaceuticals are obliged by Article L 603 of the Law No.92-1279 of December 1992, to have GMP Certificates. Marketing authorization is also required by Article L 601 of the same law to export pharmaceutical products. However, pharmaceutical products for export are not required to be controlled or subjected to evaluation to obtain marketing authorization as is the case with locally used pharmaceuticals. The issue of a Certificate of a Pharmaceutical Product is not a requirement for obtaining an export license.*

The report also shows that out of 231 pharmaceutical wholesalers in France, 26 carry out export activities exclusively. In addition, hospital pharmacies and charitable associations export pharmaceuticals, often without getting their drugs registered.

Certificates issued by the regulatory authorities include: Attestation of Free Sale according to L 601, Certificate of Free Sale for product according to L 603, GMP Certificate and Certificate of a Pharmaceutical Product (WHO 1975 type).**

* According to information received after the assessment, in France ... "products without Free Sale certificate (AMM) are henceforth exported accompanied with a declaration of exportation in agreement with the decreed application of Article L 603 created in June 1994. This document is included in the certificate of exportation and replaces the outdated "Authorization of Exportation" which no longer exists."

** Also... "In Accordance with the Law 92 179 of December 1992, certificates issued after June 1994 by the authority will include:

- Free Sale Certificate (AMM) according to L 601 (Certificate de libre vente);
- Export Certificate according to L 603 (Déclaration d'exportation);
- Certificates of legal existence of the establishment (Arrêté d'ouverture d'établissement pharmaceutique);
- Certificate of Good Manufacturing Practices (délivré par l'Inspection, non conforme OMS), not in accordance with WHO;

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- Certificate of a Pharmaceutical Product (WHO 1975 type); (délivrance non systématique)".

5.2 India

There are currently 200 large (including multinationals) and 8000 small (including contract manufacturers) manufacturers, of which 152 have a GMP Certificate.

The Drug and Cosmetics Act of 1940, the Drug and Cosmetics Rules of 1945 and the subsequent amendments are used for the control of import, manufacturing and export of pharmaceutical products.

Drug control is exercised at central and state level. The state regulatory authorities are responsible for regulation of manufacture, sale and distribution of drugs including the issuance of product certificates and GMP certificates. The central authorities are responsible for developing standards, control of the quality of imported drugs, coordinating state activities and concurrent control of the manufacture of vaccines and sera, I.V. fluids and blood products. Joint inspections are carried out by the central and state authorities for the licensing of new manufacturing premises and for the issuance of a Certificate of a Pharmaceutical Product.

In addition to various types of national certificates, the 1975 format of the WHO-type Certificate of a Pharmaceutical Product is issued when requested by importing countries.

Moreover, pharmaceuticals manufactured by contract manufacturers and not supported by a Certificate of a Pharmaceutical Product are exported to trading centres in Europe and Asia.

6. ANALYSIS OF RESULTS FROM INTERNATIONAL SUPPLY AGENCIES

Several nongovernmental and "not-for-profit" institutions have created drug supply organizations that function on a global scale to provide essential drugs at low cost.

Two such organizations covered by the survey are: the UNICEF Supply Division, located in Denmark, and the International Dispensary Association (IDA), located in the Netherlands. These organizations (intermediary suppliers) provide pharmaceuticals to public and charitable health institutions and programmes in developing countries.

The organizations procure drugs on the international market from original manufacturers as well as contract manufacturers and transfer these products to their central warehouses. From there, they distribute them to the receiving countries.

The survey showed that the value of pharmaceuticals supplied in 1992 by UNICEF amounted to US\$ 123 million (US\$ 61 million worth of essential drugs and US\$ 62 million worth of vaccines) and the main clients were developing countries in Africa and Asia. The drugs were purchased mainly from Austria, Belgium, Canada, France, Germany, Italy, Japan, Switzerland, UK, and USA. Procurement was done by means of open and restricted tender and by using a group of permanent suppliers.

In the case of IDA, the total supply during the same year amounted to US\$ 60 million for a total turnover of US\$ 80 million. The Organization has 20 regular and 100 irregular suppliers and the major importers are countries in Africa (70%); Central America (10%); and the Middle East (8%). Procurement is mainly from manufacturers in China, Europe, India and South Korea. Procurement is done by means of tender and by using a group of suppliers. IDA also has a formulation plant called PHARMAMED in Malta, which covers, in value terms, 20% of the supplies. The products manufactured by PHARMAMED are not registered in the Netherlands.

As observed during the survey, quality assurance of products distributed by IDA and UNICEF consists of the following elements:

- a) review of product certificates obtained from suppliers;
- b) review of suppliers by requesting GMP certificates, or a copy of the manufacturing license or a copy of the last inspection result;
- c) audits by their own or international staff;
- d) review of analytical batch certificates issued by the manufacturer;
- e) visual inspection (appearance, labelling, containers) of received products;
- f) laboratory testing of received products by random sampling.

Both agencies control the quality of purchased products by sampling all batches on arrival for visual review and by testing the quality of selected batches. In UNICEF's case testing is done by collaborating laboratories. IDA makes basic tests in its own laboratory which is located in Amsterdam.

IDA and UNICEF also play the role of exporter. Therefore, they sometimes provide, on request, copies of analytical batch certificates issued by the original manufacturer of the batch. They also provide copies of original product certificates when requested by the importers.

The survey showed that the international supply agencies encounter difficulties in obtaining WHO-type certificates from exporting countries such as China, Germany, Italy, Spain and the UK. There are also doubts about the validity of certificates issued by some countries. This includes certificates issued by Chinese provincial health authorities and certificates issued in Germany for trading houses which do not have any production facility.

7. SUMMARY ANALYSIS

7.1 Importing countries

Analysis of data collected from the survey of 15 importing countries clearly shows that only two countries used the WHO Certification Scheme in drug registration in the format recommended by WHO. Eight countries requested national certificates, while the remaining five countries did not request any certificate since they do not have a system of drug registration.

Procurement data collected also revealed that, with the exception of one country, the rest requested different types of certificates during procurement. The certificates requested and their percentages were: WHO type certificates 27%; Certificate of Analysis 20%; Free Sale and Batch Certificate 27%; Free Sale Certificate 6%; GMP Certificate and Certificate of Quality Control 6%; and Registration Certificate 6%.

Confusion concerning the nature of a batch certificate (WHO-type) and of its difference from an analytical batch certificate issued by a manufacturer exists among the people working in drug registration and procurement. Analytical batch certificates issued by manufacturers are not usually linked to the certificate of a pharmaceutical product as recommended by WHO.

When questioned why they were not requesting the WHO-type certificates, most countries responded that they knew little about the Certification Scheme, its advantages and differences from the other certificates. Some said that the non mandatory nature of the Scheme did not encourage them to use it.

In general the majority of importing countries surveyed request certificates from exporting countries during registration and procurement. This indicates that there is high potential for the Scheme to be used by most of the importing countries, provided adequate information and promotional activities are undertaken.

7.2 Exporting countries

The assessment showed that most, if not all, exporting countries that have accepted the Scheme have not yet standardized the text of their certificates in accordance with the recommendation of WHO. Most of them issue other national certificates rather than WHO-type certificates. In one of the two exporting countries surveyed, export products are not controlled, while in the other country, out of a total of 8200 manufacturers, only 152 meet the GMP requirements.

There were many complaints by importing countries about the signatures, dates, and level of authority on the certificates received from exporting countries.

The certificates issued by exporting countries sometimes lack information on the frequency and magnitude of inspections of manufacturing plants and do not include labelling and product information as approved in country of origin.

7.3 The WHO Certification Scheme

The WHO Certification Scheme requires that each Member State intending to use the Scheme to support the export of pharmaceutical products should first satisfy itself that it possesses, among other things, an effective national licensing system for pharmaceutical products, manufacturers and distributors and GMP consonant with those recommended by WHO. The responsibility to determine whether these requirements are met is left to the judgement of each exporting country.

In reality, national drug regulatory practices often differ from country to country in their practices, emphasis, standards, and rigour of enforcement. This implies that the certification by national regulatory authorities gives only a partial assurance and that each importing country needs to have a functioning drug regulatory system supported by a quality control laboratory to verify the quality of drugs being imported.

The provisions of the WHO Certification Scheme leave it for the authorities of the exporting country to decide which governmental institution will be responsible for the issue of product certificates for exported drugs. The situation is simple in those countries where there is a single central drug regulatory authority but becomes more complicated in countries with a federal structure.

A similar but a much more complex situation observed during the assessment pertains to countries which have not yet acceded formally to the Scheme but issue a certificate for products they export.

The guidelines on the implementation of the WHO Certification Scheme state that the product certificate should be considered as a confidential document and that it should not be reproduced. However, these restrictions are overruled in cases where pharmaceutical products are re-exported.

In the case of analytical batch certificates a practice is spreading that when a batch of a product is re-exported, a copy of the analytical batch certificate issued by the manufacturer is provided to the recipient of the drugs.

As originally intended, the Certification Scheme was to operate in situations where a pharmaceutical product is sold directly from the country of manufacture to the country of final destination. Under this condition, even if commercial intermediates (trade representatives, import companies, wholesalers) are involved in the arrangements, there still exists a possibility of direct contact between the regulatory authorities of the exporting and importing countries.

The study showed that at present such direct arrangements pertain only to a part of international trade in pharmaceuticals. Frequently, importation is done from stocks held in an

intermediate (third) country. The activities in an intermediate country, as evidenced by the survey, will sometimes include repacking from bulk containers into smaller containers and/or labelling of original containers. This situation will make the use of the Certification Scheme much more complex than originally envisaged unless a special provision under these circumstances is included in the Scheme.

8. CONCLUSIONS

WHO Member States adopted the WHO Certification Scheme in 1975 as an instrument to assure the quality of pharmaceutical products moving in international commerce. In spite of its existence for the last 20 years, its use has not been encouraging. Drug regulatory authorities of importing countries lacked appropriate information on the mode of operation of the Scheme and its advantages and limitations when compared to other certificates.

Even though the Scheme has certain limitations and there is the problem of relying on the good faith of exporting countries, it will allow importing countries to receive formal assurance from the regulatory authorities of the exporting countries about the registration status and the quality of the pharmaceutical product they import. Importing countries, therefore, have to make maximum use of the Scheme as recommended by WHO and endeavour to establish their own effectively operational quality assurance system, including drug registration, inspection and quality control laboratory.

Because the Scheme is a non obligatory agreement left open to participation by Member States on a voluntary basis, some exporting countries are not yet party to the Scheme. Others which are committed to the implementation of the Scheme have failed to meet its requirements by not issuing a Certificate of a Pharmaceutical Product for products they export and by not subjecting export products to control measures.

While revision of the Scheme from time to time is essential, it may not serve as a means to promote its implementation. There is, therefore, a need for more concerted international public pressure and better structured informational programmes to increase the commitment of Member States and to promote better implementation of the Scheme. To achieve this it is recommended that:

Importing countries

- ensure that they have an effectively operational drug regulatory system based on legislation, regulations, established procedures and guidelines, and make the WHO Certification Scheme a requirement in drug registration and procurement;
- familiarize registration and procurement personnel with the WHO Certification Scheme through orientation and training programmes;
- maintain a good level of contact with their counterparts in exporting countries so that inadequacies in the quality of drugs can be recognized and tackled by all parties.

Exporting countries

- standardize the text of their certificates in accordance with the WHO Certification Scheme and issue a Certificate of a Pharmaceutical Product when requested by importing countries;

- subject pharmaceutical products for export to the same standards of control applied to locally consumed products;
- educate their manufacturers in the purpose and operation of the WHO Certification Scheme and ensure that batch certificates issued by manufacturers make reference to the relevant Certificate of a Pharmaceutical Product issued by the regulatory authority;
- maintain contact with the appropriate regulatory authorities in importing countries to explain and confirm the details of the WHO Certification Scheme.

The World Health Organization

- assist developing countries in their efforts to develop their own drug quality assurance systems;
- initiate informational and promotional programmes for Member States to promote global implementation of the Scheme. The programme should include regional workshops and seminars that involve representatives from regulatory authorities of both importing and exporting countries;
- initiate selected studies on pharmaceutical product flows in the international market as a background for proposals on the use of the Scheme in situations where products are re-exported;
- assess the operation of the Scheme from time to time to evaluate to what extent countries are using it.

Annex 1

RESOLUTION ADOPTED BY THE TWENTY-SECOND WORLD HEALTH ASSEMBLY

WHA22.50 **Quality Control of Drugs**

The Twenty-second World Health Assembly,

Recalling resolution WHA21.37;

Having considered the report for the Director-General on the quality control of drugs;

Noting with satisfaction the formulation of the "Principles of Pharmaceutical Quality Control"¹ and "Good Practices in the Manufacture and Quality Control of Drugs"² as presented in the report of the Director-General;

Recognizing that general observance of such principles and practices is essential and, in particular, a prerequisite for a system of certification for drugs in international commerce; and

Considering that general acceptance of such a certification system would be an important first step toward ensuring the desired level of quality control of drugs in international commerce,

1. RECOMMENDS that Member States adopt and apply
 - (1) the requirements for "Good Practices in the Manufacture and Quality Control of Drugs" as formulated in the report of the Director-General,²
 - (2) the certification scheme on the quality of pharmaceutical products moving in international commerce as formulated in the report of the Director-General as amended,³
2. REQUESTS the Director-General to report to the Twenty-third World Health Assembly
 - (1) on those improvements in the requirements for good manufacturing practice and in the certification scheme which may appear to be necessary; and
 - (2) on further progress with regard to the certification scheme and the implementation thereof.

July 1969

¹ *Wld Hlth Org. techn. Rep. Ser.*, 1969, **418**, Annex 1.

² See *Off. Rec. Wld Hlth Org.* **176**, Annex 12, part 1.

³ See *Off. Rec. Wld Hlth Org.* **176**, Annex 12, part 2.

Annex 2 (a)

RESOLUTION ADOPTED BY THE TWENTY-EIGHTH WORLD HEALTH ASSEMBLY

PROPHYLACTIC AND THERAPEUTIC SUBSTANCES

Good practices in the manufacture and quality control of drugs and certification scheme on the quality of pharmaceutical products moving in international commerce

WHA28.65 The Twenty-eighth World Health Assembly,

Recalling resolutions WHA22.50, WHA23.45 and WHA25.61;

Having noted resolution EB55.R21;

Having examined the report of the Director-General on prophylactic and therapeutic substances,

1. ADOPTS the revised texts of the "Good practices in the manufacture and quality control of drugs" and the "Certification scheme on the quality of pharmaceutical products moving in international commerce", as appended to the report;¹
2. RECOMMENDS that Member States:
 - (1) apply the revised requirements for "Good practices in the manufacture and quality control of drugs" as formulated in the report of the Director-General;
 - (2) participate in the revised "Certification scheme on the quality of pharmaceutical products moving in international commerce" as formulated in the report of the Director-General; and
3. REQUESTS the Director-General to report to a future World Health Assembly on the implementation of the above recommendations.

May 1975

¹ WHO Official Records, No. 226, 1975, p.88.

ANNEX 2 (b)

CERTIFICATE OF PHARMACEUTICAL PRODUCT(S)¹

Name and dosage form of product:

Name and amount of each active ingredient:².....

.....

.....

Address(es):.....

It is certified that:

This product has been authorized to be placed on the market for use in this country.
Number of permit and date of issue (if applicable):.....

This product has not been authorized to be placed on the market for use in this country
for the following reasons:.....

It is also certified that (a) the manufacturing plant in which the product is produced is subject to inspections at suitable intervals, and (b) the manufacturer conforms to requirements for good practices in the manufacture and quality control, as recommended by the World Health Organization, in respect of products to be sold or distributed within the country of origin or be exported. (See Explanatory Notes.)

.....
(Signature of designated authority)

.....
(Place and date)

Explanatory Notes

Certificate of Pharmaceutical Product(s)

This certificate is intended to define the status of the pharmaceutical product and its manufacturer in the exporting country. It is issued by the competent authority in the exporting country in accordance with the requirements of the competent authority of the importing country. It may be required by the importing country at the time of the first importation and subsequently if confirmation or updating is required.

The requirements for good practices in the manufacture and quality control of drugs mentioned in the certificate refer to the text adopted by the Twenty-eighth World Health Assembly in its resolution WHA28.65 (see *Official Records* No.226, Annex 12, Part 1).

Batch Certificates

If certificates of individual batches of products covered by a Certificate of Pharmaceutical Products are required,

such certificates could be issued either by the manufacturer or by the competent authority of the exporting Member State, according to the nature of the product and the requirements of the exporting Member State or of the importing Member State. The batch certificate would indicate the name and dosage form of the product, the batch number, the expiry date and storage conditions, a reference to the Certificate of Pharmaceutical Products and a statement that the batch conforms either to the requirements of the competent authority for sale or distribution within the exporting Member State (with reference to the authorization) or, where appropriate, to published specifications or to established specifications to be provided by the manufacturer. The certificate could also include data on packaging, labelling, nature of the container, the date of manufacture, results of analysis, and other data.

**Use of the WHO Certification Scheme on the Quality of
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¹This form may be adapted to cover several products of the same manufacturer.

²Use, whenever possible, international nonproprietary names (INN) or national nonproprietary names.

ANNEX 3 (a)

RESOLUTION ADOPTED BY THE FORTY-FIRST WORLD HEALTH ASSEMBLY

**WHO CERTIFICATION SCHEME ON THE QUALITY OF PHARMACEUTICAL
PRODUCTS MOVING IN INTERNATIONAL COMMERCE**

WHA41.18 The Forty-first World Health Assembly,

Taking note of previous resolutions on the question;

Having examined the Director-General's report on the rational use of drugs, and in particular the proposed amendments to the WHO Certification Scheme on the Quality of Pharmaceutical Products Moving in International Commerce;

Noting the fact that, in any case of obvious doubt, any Member State may request the Organization for assistance in finding an independent collaborating centre to carry out batch tests for the purposes of quality control;

1. ADOPTS the revised text of the expanded WHO Certification Scheme on the Quality of Pharmaceutical Products Moving in International Commerce;¹
2. INVITES Member States which are not yet participating in the Scheme to do so;
3. RECOMMENDS to Member States that they implement as far as possible all the provisions of the expanded WHO Certification Scheme;
4. REQUESTS the Director-General to report, in his report on WHO's revised drug strategy to a future Health Assembly, on the progress accomplished in the implementation of the expanded WHO Certification Scheme.

May 1988

¹ Document WHA41/1988/REC/1, p.53.

ANNEX 3 (b)

CERTIFICATE OF PHARMACEUTICAL PRODUCT(S)¹
(Proposed Layout)

Name and dosage form of product:.....

Name and amount of each active ingredient:²

.....
.....

Manufacturer, and/or when applicable, the person responsible for placing the product on the market:

.....
Address(es):.....

It is certified that:

- This product has been authorized to be placed on the market for use in this country.
Number of permit and date of issue (if applicable):
- The enclosed documents constitute the complete text of all labelling and prescribing information which is authorized for use in this country.
- This product has not been authorized to be placed on the market for use in this country for the following reasons:.....

It is also certified that (a) the manufacturing plant in which the product is produced is subject to inspections at suitable intervals and (b) the manufacturer conforms to requirements for good practices in the manufacture and quality control, as recommended by the World Health Organization, in respect of products to be sold or distributed within the country of origin or be exported. (See Explanatory Notes.)

.....
(Signature of designated authority)

.....
(Place and date)

Explanatory Notes

Certificate of Pharmaceutical Product(s)

This certificate is intended to define the status of the pharmaceutical product and its manufacturer in the exporting country. It is issued by the competent authority in the exporting country in accordance with the requirements of the competent authority of the importing country. It may be required by the importing country at the time of the first importation and subsequently if confirmation or updating is required.

The requirements for good practices in the manufacture and quality control of drugs mentioned in the certificate refer to the text adopted by the Twenty-eighth World Health Assembly in its resolution WHA28.65 (see *Official Records* No.226, 1975, Annex 12, Part 1).

¹ The certificate is intended to be product specific. The approved information for different dosage forms of the same active substance frequently differs in fundamental aspects. Confusion will inevitably arise if information relating to different products, or even different usage forms, is attached to the same certificate.

² Use, whenever possible, international nonproprietary names (INNs) or national nonproprietary names.

Batch certificates

Certification of individual batches of a pharmaceutical product or substance is only undertaken exceptionally by the competent authorities of Member States. Even then, it is rarely applied other than to vaccines and other biologicals. If certificates of individual batches of products covered by a Certificate of a Pharmaceutical Product is required, such certificates could be issued either by the manufacturer or by the competent authority of the exporting Member State, according to the nature of the product and the requirements of the exporting Member State or of the importing Member State. The batch certificate would indicate the name and dosage form of the product, the batch number, the expiry date and storage conditions, a reference to the Certificate of a Pharmaceutical Product and a statement that the batch conforms either to the requirements of the competent authority for sale or distribution within the exporting Member State (with reference to the authorization) or, where appropriate, to published specifications or to established specifications to be provided by the manufacturer. The certificate could also include data on packaging, labelling, nature of the container, the date of manufacture, results of analysis, stability data and other information such as an approved technical summary of the data regarding safety and efficacy on which the domestic marketing authorization is based.

ANNEX 4 (a)

PROPOSED GUIDELINES ON THE WHO CERTIFICATION SCHEME ON THE QUALITY OF PHARMACEUTICAL PRODUCTS MOVING IN INTERNATIONAL COMMERCE

WHA45.29 The Forty-fifth World Health Assembly,

Taking note of previous resolutions on WHO's Certification Scheme on the Quality of Pharmaceutical Products moving in International Commerce, and particularly resolution WHA41.16, which refers to the export, import and smuggling of falsely labelled, spurious, counterfeited or substandard pharmaceutical operations;

Having reviewed the report on the implementation of WHO's revised drug strategy, and in particular the proposed guidelines on the implementation of the Certification Scheme;

Aware of the need for prospective importing countries to obtain explicit assurances regarding the quality of products not registered in the country of provenance;

Believing that adoption of the proposed guidelines will contribute to deterrence of the export, import and smuggling of falsely labelled, spurious, counterfeited or substandard pharmaceutical preparations;

Recognizing that a comprehensive system of quality assurance including the WHO Certification Scheme must be founded on a reliable national system of licensing, independent analysis of the finished product and independent inspection to verify that all manufacturing operations are carried out in conformity with accepted norms, referred to as "good manufacturing practices";

1. ENDORSES the guidelines for implementation of the WHO Certification Scheme, which will be evaluated and revised, as necessary, in consultation with the Committee on Drug Policies of the Executive Board;
2. URGES Member States to implement these guidelines, and to issue certificates within five years in a form to be agreed in the light of experience gained in preliminary field testing.

May 1992

ANNEX 4 (b)

ANNEX 4 (c)

ANNEX 4 (d)

ANNEX 5

Protocol for the Assessment of the Use of the WHO Certification Scheme by Importing Country

The country mission teams shall obtain information on the drug regulatory activities and those elements of the drug supply and quality assurance systems which are relevant to the operation of the WHO Certification Scheme. They will establish more precisely the extent to which the existing formal requirements of the WHO Certification Scheme are implemented in practice and provide an overall evaluation of the situation, including observations and recommendations. The missions will further educate and promote the use of the Scheme by giving practical suggestions on "how to" go about it.

Several indicators proposed in the protocol outline will facilitate the assessment of the use of the Certification Scheme; if the numerical data are difficult to establish, e.g. when the Scheme is only sparsely utilized, a descriptive term may be used.

1. GENERAL DATA ON THE PHARMACEUTICAL SECTOR

1.1 Economics

(when no exact figure exists, use best estimates)

1.1.1 State the total value (US\$) of pharmaceutical imports in 1992. Specify also donations (volume and amount), when feasible. If needed, enter figures from 1990 and 1991.

1.1.2 State the major countries of origin of imported pharmaceuticals and the part of the total import market (% in value) that each of them has:

1.1.3 State the value (US\$) of drug consumption in the country in 1992:

- in the public sector
- in the private sector

- in other sectors (e.g. NGO)

- 1.1.4 State the total public sector drug budget (US\$) in 1992 and the respective contribution from national resources and from external assistance, expressed as percentages (%).
- 1.1.5 State total population in country in 1992.
- 1.2 Policy
- 1.2.1 Is there a written and approved national drug policy (give the name and date of the document)? Is there a drug policy in practice (describe)?
- 1.2.2 Are there any aspects of the policy relating to regulatory control including drug registration, drug procurement and quality assurance? Attach the relevant excerpts. Are there other specific policies, e.g. for drug registration, rational drug use, quality assurance, etc.?
- 1.2.3 Is there a plan for implementation of the drug policy, and is it being adhered to (give the name and date of plan)?
- 1.3 Essential Drugs Lists
- 1.3.1 Is there an essential drugs list (give the date of last issue)?
- 1.3.2 Is it used for procurement in the public sector, and if so how many products does it comprise?

**2. INFRASTRUCTURE AND FUNCTIONING OF BODIES RESPONSIBLE FOR
DRUG REGULATORY CONTROL, PROCUREMENT AND QUALITY
ASSURANCE**

When assessing drug regulatory activities, use an outline of these activities included in the document: "Guiding Principles for Small National Drug Regulatory Authorities" [see TRS 790, 64.79 (1990); WHO Drug Information, 3: 43-50 (1989)].

2.1 Infrastructure

Using an organogram, describe the names, functions and linkages between bodies responsible for:

- a) drug regulation and registration;
- b) procurement for the public sector (centralized or decentralized organizations);
- c) procurement for the private sector (estimated number of importers);
- d) quality assurance (administration and laboratories);
- e) use of private inspection agencies (e.g. Bureau Veritas, SGS; specify and enter on organogram).

2.2 Functioning of drug regulation, procurement and quality assurance

2.2.1 Drug Regulation

2.2.1.1 State the title and date of enactment of the drug legislation (attach copy).

2.2.1.2 State the titles and dates of enactment of drug regulations/guidelines related to drug registration and quality assurance (attach copies).

2.2.1.3 State the date (year) of commencement of drug registration.

2.2.1.4 INDICATOR 1

State the percentage of pharmaceutical products on the market which are currently registered (licensed).

Format: percentage, calculated as the number of products registered divided by the total number of products on the market (or, from a random sample of products, the number registered divided by the total sample), expressed as percentage (%). If indicator is below 100%, explain the situation: e.g. parallel market, drugs offered by donor, imported by NGO's, etc.

Prerequisites: accessible information in the drug control administration on products which are registered and the total number of products on the market. If the latter information is not felt to be up-to-date, a random survey of 100 products in a retail pharmacy can be undertaken to determine the percentage registered.

2.2.2 Procurement of imported drugs for the public sector:

2.2.2.1 Which procurement methods are used?

- Open tender
- Restricted tender
- Negotiated procurement
- Direct purchase from manufacturers/agents
- Direct purchase from wholesalers abroad
- Direct purchase from international suppliers of essential drugs e.g. UNICEF, IDA, ECHO, other (specify)
- Donor supply in kind

2.2.2.2 State the estimated number of imported products procured in 1992 from:

- manufacturers and their agents (specify countries of manufacture)

- wholesalers abroad and in the country (specify their location)

- international suppliers of essential drugs e.g. UNICEF, IDA, ECHO or other (please specify)

**Use of the WHO Certification Scheme on the Quality of
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- donors (specify sources of drugs)

2.2.3 Procurement for the private sector:

2.2.3.1 Which procurement methods are used?

- Negotiated procurement
- Direct purchase from manufacturers/agents
- Direct purchase from wholesalers abroad
- Direct purchase from international suppliers of essential drugs e.g. UNICEF, IDA, ECHO, other (specify)

2.2.3.2 State the estimated number of products procured in 1992 from:

- manufacturers and their agents (specify main countries of manufacture, cf. answer to item 1.1.2);

- wholesalers abroad (specify the country);

- international suppliers of essential drugs (UNICEF, IDA, ECHO, etc.).

2.2.4 Quality control in the public sector:

2.2.4.1 Which drugs were sent for quality control in 1992 and upon which criteria were they selected?

2.2.4.2 How many samples were sent for quality control in 1992, and how many passed (express as a %)?

2.2.4.3 When are samples collected and sent for analysis?

- at the time of bidding
- after placing the order, pre-shipment
- after receipt of drugs but before payment
- after receipt and after payment
- following complaints

2.2.4.4 Where are drugs tested?

- in country (give name of department or laboratory)

- abroad (describe costs and sample shipping arrangements and name/place of institution)

2.2.5 Quality control of drugs imported in the private sector:

- are imported products tested by importers?

- are imported products tested by the regulatory authority?

2.2.6 Is there a system or contact place for health personnel and patients to report complaints regarding drug quality? If it is so, how many complaints were received in 1992?

3. OPERATION OF THE WHO CERTIFICATION SCHEME

3.1 Formal status of the country in respect of the Scheme

3.1.1 Date of participation:

3.1.2 Designation and address on the competent authority (is the information provided to WHO Secretariat still correct?).

3.2 Use of WHO-type certificates in drug registration

3.2.1 Is the receipt of a WHO-type Certificate of a Pharmaceutical Product a prerequisite for drug registration? Where is this requirement formally laid down (in legislation/regulations/guidelines)?

3.2.2 Attach the Product License application form.

3.2.3 INDICATOR 2

State the percentage of product licence applications received in 1992 for which a WHO-type Certificate of a Pharmaceutical Product was provided by the applicant. Separate three situations which illustrate partial or full use of 1975 WHO-type certificate:

- (1) regulatory status of product only (a free sale certificate);
- (2) GMP compliance only;
- (3) the two above combines (a 1975 WHO-type certificate).

Format: the number of product licence applications supported by WHO-type Certificates of Pharmaceutical Products divided by the total number of product licence applications received in 1992, expressed as a percentage (%).

Prerequisites: operational drug registration system; requirement of WHO-type certificate for drug registration defined in regulations/guidelines; accessible accurate data in drug administration.

3.2.4 If WHO-type Certificates of Pharmaceutical Products have not been provided by applicants, what are the reasons?

3.2.5 If WHO-type Certificates of Pharmaceutical Products are sometimes rejected, what are the reasons?

- the contents do not comply with the WHO 1975 format/content;
- no signature/ designation/ stamp of the certifying country;
- others (specify).

3.2.6 INDICATOR 3

State the percentage of WHO-type Certificates of Pharmaceutical Products received in 1992 which were rejected as invalid. Describe steps taken to verify authenticity of certificates, if any.

Format: the number of product licence applications supported by WHO-type Certificates of Pharmaceutical Products divided by the total number of product licence applications received in 1992, expressed as a percentage (%).

Prerequisites: as for indicator 2.

3.2.7 Were guidelines issued to agents/ wholesalers/ public sector procurement authorities on what WHO-type Certificates of Pharmaceutical Products are and on how to obtain them?

3.2.7.1 If so, describe the guidelines in a flow chart.

3.2.7.2 If WHO-type Certificates of Pharmaceutical Products are obtained through different channels in practice, describe the real situation with a separate flow chart.

3.2.8 Is the most up-to-date list of names and addresses of competent national authorities participating in the WHO Certification Scheme (as published in WHO information documents) readily available with the drug administration? Show front page of the WHO document of October 1992 (see also item 2.2.1).

3.2.9 How is the information on registered drugs communicated to customs authorities, public sector procurement authorities and private sector importers/retailers, and how frequently?

3.2.10 How are contacts made with competent authorities in exporting countries?

- direct contacts
- through intermediates (local agents, importers, manufacturers)
- joint inspection visits to foreign manufacturers
- other

3.2.11 State any other problems encountered with the use of the WHO Certification Scheme.

3.3 Use of the WHO Certification Scheme in drug procurement

3.3.1 Public sector

3.3.1.1 Are requests for WHO-type certificates laid down in official procurement specifications? If yes, describe or attach document.

3.3.1.2 Which documents are used (numbers designate the type of certificate):

- (1) Certificate of a Pharmaceutical Product
- (2) Statement of Licensing Status of a Pharmaceutical Product

(3) Batch Certificate of a Pharmaceutical Product

If possible, indicate the frequency of requests for the same product.

3.3.1.3 When are the documents requested?

- during supplier appraisal: 1 2 3
- at the time for calling for tenders: 1 2 3
- at the time for placing orders: 1 2 3

3.3.1.4 From whom are documents 1 - 3 requested?

- manufacturers and their agents: 1 2 3
- wholesalers: 1 2 3
- international suppliers of low-cost
generics (UNICEF, IDA, EHCO etc.): 1 2 3
- donors: 1 2 3
- certifying authorities: 1 2 3

If possible, add percentage.

3.3.1.5 Are formal guidelines on how to obtain these documents given to importers?

3.3.1.6 Who prepares the guidelines and how are these distributed and used in practice?
Does the procurement agency make use of WHO-type certificates supplied to drug
registration authority?

3.3.1.7 How are these documents filed by the procurement body?

- by product: 1 2 3
- by manufacturer: 1 2 3
- other (specify): 1 2 3

3.3.1.12 INDICATOR 5

State the percentage of approved manufacturers who have submitted Certificates of Pharmaceutical Products.

Format: the number of approved manufacturers who have submitted Certificates of Pharmaceutical Products to the tender body, divided by the total number of approved manufacturers in 1992, expressed as a percentage (%).

Prerequisites: Pre-qualification system for manufacturers. Accessible drug procurement data. Effective monitoring and filing system for Certificates of Pharmaceutical Products.

3.3.1.13 INDICATOR 6

State the percentage of products purchased in 1992 for which Batch Certificates were received.

Format: the number of products for which Batch Certificates were received, divided by the total number of products purchased in 1992, expressed as a percentage (%).

Prerequisites: Accessible drug procurement data. Effective monitoring and filing system for Certificates of Pharmaceutical Products.

3.3.2 Private sector importation (in the absence of a registration system)

3.3.2.1 Are WHO-type Certificates of Pharmaceutical Products required for import of drugs by private importers?

3.4 Use of the WHO Certification Scheme in drug quality assurance

(Refer also to 2.2.4 and 2.2.5) separate situations as in 3.2.3 and complete questions on quality control as under 2.2.4 and 2.2.5.

3.4.1 INDICATOR 7

State the percentage of products which failed quality control in 1992 for which a Certificate of Pharmaceutical Product had been received.

Format: the number of failed products for which a Certificate of a Pharmaceutical Product had been received, divided by the total number of failed products in 1992, expressed as a percentage (%).

Prerequisites: Accessible information on QC failures. Effective monitoring and filing system for Certificates of Pharmaceutical Products.

3.4.2 INDICATOR 8

State the percentage of failed products in 1992 for which appropriate communication had been made to the Certifying Authority (and WHO) in accordance with the WHO Certification Scheme.

Format: the number of failed products in 1992 for which appropriate communication had been made to the Certifying Authority (and WHO), divided by the total number of failed products in 1992, expressed as a percentage (%).

Prerequisites: Accessible information on QC failures. Effective monitoring and filing system for Certificates of Pharmaceutical Products.

3.5 Field trial of 1992 Guidelines

(pertains to countries that agreed to participate in the field trial)

3.5.1 Describe experiences to date.

ANNEX 6

List of Participants in the Study

A. IMPORTING COUNTRIES

1. Regional Office for Africa (AFRO)

1.1 Local Team Members

BENIN: Monsieur Eugène Déguénon, Pharmacien, Directeur des Pharmacies et des Laboratoires, Ministère de la Santé publique, Boîte postale 882, Cotonou

Mr Adolphe Topanou, Pharmacien, Conseiller Technique, Ministère de la Santé publique, Boîte postale 882, Cotonou

CAMEROON: M. Nguele Ze, Pharmacien, Chef Service Inspection Visas et Informations pharmaceutiques, c/o M. le Représentant de l'OMS, Yaoundé

M. Ndo Jean Rollin Bertrand, Pharmacien, Chef Service provincial Pharmacie du Littoral et Chef Transit Santé, c/o M. le Représentant de l'OMS, Yaoundé

CENTRAL AFRICAN REPUBLIC: Mr Jacob Ngaba, Inspecteur des Services pharmaceutiques, Ministère de la Santé publique, Boîte postale 883, Bangui

Mr David Kilayo, Chef de service de la pharmacie et du médicament, Ministère de la Santé publique, Boîte postale 883, Bangui

KENYA: Dr K. Baya, Ministry of Health, P.O. Box 30016, Nairobi

Dr E. Kamamia, Ministry of Health, P.O. Box 30016, Nairobi

MALAWI: Mr P.S.P. Tembo, Chief Pharmacist and Registrar, Pharmacy Medicines and Poisons Board, Ministry of Health, P.O. Box 30390, Capital Hill, Capital City, Lilongwe 3

Mr W.C. Chalira, Chief Pharmacist, Central Medical Stores, Ministry of Health, P.O. Box 30390, Capital Hill, Capital City, Lilongwe 3

TANZANIA: Mr J.S. Muhume, Pharmacist, Central Medical Stores, Ministry of Health and Social Welfare, P.O. Box 9083, Dar-es-Salaam

Mr L.R. Mhangwa, Pharmacy Board, Ministry of Health and Social Welfare, P.O. Box 9083, Dar-es-Salaam

1.2 International Temporary Advisers

BENIN: Mr Pascal Coffi Hessou*, Central d'Achat des Médicaments essentiels, B.P. 01 3280, Cotonou

BURUNDI: Mr Anaclet Baza*, c/o Monsieur le Représentant de l'OMS, Boîte postale 1450, Bujumbura

ETHIOPIA: Mr Eshetu Wondemagegnehu**, P.O. Box 30635, Addis Ababa

ZIMBABWE: Mr Aidan Chidarikire**, Director of Pharmacy Services in Zimbabwe, Ministry of Health and Child Welfare, P.O. Box CY 1122, Causeway, Harare

2. Regional Office for the Americas (AMRO)

2.1. Local Team Members

ECUADOR: Dra Elvira Marchan, Directora de Registro y Control Medicamentos, Ministerio de Salud, Pública, Juan Larrea 444 y Riofrío, Quito

Dr Frederico Santos, Ministerio de Salud Pública, Juan Larrea 444 y Riofrío, Quito

JAMAICA: Ms Grace Allen, Director, Pharmaceutical Services, Ministry of Health, P.O. Box 472, Kingston 5

Mrs Henry, Jamaica Commodity Trading Company, Ministry of Health, P.O. Box 472, Kingston 5

2.2 International Temporary Advisers

ARGENTINA: Dr Marcelo Vernengo***, Rep. Arabe Siria 2711-5° Piso (ex Malabia), 1425 Buenos Aires

UNITED STATES OF AMERICA: Mr E. Rivera Martinez***, Centre for Drug Evaluation and Research, Food and Drug Administration, 5600 Fishers Lane, RM-A-32, Rockville, MA 20852

* Mission to, Benin, Cameroon and Central African Republic

** Mission to Kenya, Malawi and Tanzania

*** Mission to Ecuador and Jamaica

3. Regional Office for the Eastern Mediterranean (EMRO)

3.1 Local Team Members

TUNISIA: Dr Iddir Kameleddine, Inspecteur Divisionnaire, Sous-Directeur à la Direction de la Pharmacie et du Médicament, Ministère de la Santé publique, Place Bab Sadoun, Tunis

Dr Jaleleddine Hila, Directeur de l'Approvisionnement à la Pharmacie centrale de la Tunisie, Ministère de la Santé publique, Place Bab Sadoun, Tunis

YEMEN: Dr Mohamed Said Shaibani, c/o The WHO Representative, P.O. Box 543, Sana'a

Dr Hussein Al-Kataa, c/o The WHO Representative, P.O. Box 543, Sana'a

3.2 International Temporary Advisers

CYPRUS: Mr E. Kkolos*, Director, Pharmaceutical Services, Ministry of Health, Nicosia

FRANCE: Mr Patrick Becu**, Inspection de la Pharmacie, Direction régionale des affaires
sanitaires
et sociales, 52, rue Daire, 80037 Amiens Cedex 1

4. Regional Office for South-East Asia (SEARO)

4.1 Local Team Members

MYANMAR: Mr U Myint Thein, Principal, Institute of Pharmacy, Ministry of Health of the Union
of
Myanmar, International Health Division, Yangon

Dr Maw Thein, Deputy Director, Central Medical Stores Department, Ministry of Health of the
Union
of Myanmar, International Health Division, Yangon

SRI LANKA: Dr S. Tennakoon, Deputy Director General (Laboratory Services), c/o The WHO
Representative, Colombo 4

Mr Hsk Sirisena, Manager, Products and Planning, State Pharmaceuticals Corporation,
c/o The WHO Representative, Colombo 4

4.2 International Temporary Advisers

POLAND: Dr W. Wieniawski***, Institute of Drug Control, Chelmska 3000-725 Warsaw

SINGAPORE: Ms Amy Lim***, Deputy Director, Drug Administration Division, Ministry of Health,
College of Medicine Building, 16 College Road, Singapore 0316

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- * Mission to Yemen
- ** Mission to Tunisia
- *** Mission to Myanmar and Sri Lanka

5. Regional Office for the Western Pacific (WPRO)

5.1 Local Team Members

FIJI: Mr Murray Patterson, Chief Pharmacist, c/o The WHO Representative, P.O. Box 113, Suva

MALAYSIA: Dr Hadida Bte Hashim, c/o Ministry of Health, Kuala Lumpur 50590

PAPUA NEW GUINEA: Mr D. Gwillim, a/Superintendent, Pharmaceutical Supplies, Ministry of Foreign Affairs, c/o The WHO Representative, P.O. Box 5896, Boroko, N.C.D., Port-Moresby

Mrs D. Tuka, Secretary, Pharmaceutical Supply and Tender Board, Ministry of Foreign Affairs,
c/o The WHO Representative, P.O. Box 5896, Boroko, N.C.D., Port-Moresby

5.2 International Temporary Advisers

POLAND: Dr W. Wieniawski*, Institute of Drug Control, Chelmska 3000-725 Warsaw

SINGAPORE: Mr Yip Lung Wong**, 40 Windsor Park Road, Singapore 2057

INDIA: Dr Prem Gupta***, Flat No. 95, Pocket B, Sukhdev Vihar, New Delhi 110025

* Mission to Fiji, Malaysia, Papua New Guinea and Philippines

**Use of the WHO Certification Scheme on the Quality of
Pharmaceutical Products Moving in International Commerce**

** Mission to Papua New Guinea

*** Mission to Malaysia

B. EXPORTING COUNTRIES

1. FRANCE

Dr Iddir Kameleddine, Inspecteur Divisionnaire, Sous-Directeur à la Direction de la Pharmacie et du Médicament, Ministère de la Santé publique, Place Bab Sadoun, Tunis

2. INDIA

Mr Yeap Boon Chye, 40 Jalan 14/48, 46100 Petaling Jaya, Selangou Darul Ehsan, Malaysia

Ms Amy Lim, Deputy Director, Drug Administration, Ministry of Health, College of Medicine Building, 16 College Road, Singapore 0316

C. INTERNATIONAL SUPPLY AGENCIES

1. International Dispensary Association (IDA)

Dr W. Wieniawski*, Institute of Drug Control, Chelmska 30, 00-725 Warsaw, Poland

Mr Patrick Becu, Inspection de la Pharmacie, Direction régionale des Affaires sanitaires et sociales, 52, rue Daire, 80037 Amiens Cedex 1, France

2. United Nations Children's Fund (UNICEF)

Dr W. Wieniawski*, Institute of Drug Control, Chelmska 3000-725 Warsaw, Poland

Mr Patrick Becu, Inspection de la Pharmacie, Direction régionale des Affaires sanitaires et sociales, 52, rue Daire, 80037 Amiens Cedex 1, France

* Team Leader

ANNEX 7

Protocol for the Assessment of the Use of the WHO Certification Scheme by Exporting Country

1. GENERAL DATA ON THE PHARMACEUTICAL SECTOR

1.1 Economic data

1.1.1 Total value of domestic pharmaceutical production (average of 1990-92; pharmaceuticals only) per year in US\$.

1.1.2 Total value of pharmaceutical exports (as in 1.1.1.); the percentage of exportation in the total production (in value terms).

1.1.3 Principal directions of pharmaceutical export: state main importing countries, give the part (in %) of each country in the total.

1.2 Pharmaceutical infrastructure

1.2.1 Number of pharmaceutical manufacturers.

1.2.1.1 If possible, give the number of pharmaceutical plants (separate inspection sites).

1.2.2 Number of pharmaceutical manufacturers which export a part of their production.

1.2.2.1 Number of pharmaceutical manufacturers which produce exclusively for export.

1.2.3 Total number of pharmaceutical wholesalers.

1.2.3.1 If possible, give the number of warehouses (separate inspection sites).

- 1.2.4 Number of pharmaceutical wholesalers which are involved in the export activities.
- 1.2.4.1 Number of pharmaceutical wholesalers which carry out export activities exclusively.
- 1.2.5 Other institutions involved in the exportation of pharmaceuticals (if possible give the relevant numbers):
- hospital pharmacies
 - charitable associations
 - others (specify):

2. INFRASTRUCTURE AND FUNCTIONING OF BODIES RESPONSIBLE FOR THE REGULATORY CONTROL, PROCUREMENT AND QUALITY ASSURANCE

2.1 Infrastructure

Using an organogram, give the names, functions and linkages between bodies (federal and states) responsible for:

- general drug regulatory activities and drug registration;
- regulatory control over drug exportations;
- quality assurance (administrative bodies, laboratories, inspection, etc.);

Include a short commentary describing the linkages between different institutions and bodies.

2.2 Functioning of drug regulation, control over exported pharmaceuticals and drug quality assurance

2.2.1 Drug regulation

2.2.1.1 State the titles and dates of enactment of drug laws, including those related to the exportation of pharmaceuticals; describe important elements of the legislation.

2.2.1.2 State the titles and dates of enactment of drug regulations and guidelines related to drug registration and quality assurance including those related to the exportation of pharmaceuticals; describe important elements of these regulations.

2.2.1.3 Is there a special authorization necessary for the exportation of pharmaceuticals?

If Yes: How is it regulated?

- | | | |
|------------------------|------------------------------|-----------------------------|
| • by manufacturer? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| • by product? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| • by batch? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| • otherwise (explain): | | |

2.2.1.4 Are there any special regulations concerning the collection of donations of drugs that are to be sent abroad?

If Yes: detailed explanation

2.2.1.5 **INDICATOR 1**

State the percentage of pharmaceutical products on the market which are currently registered (licensed).

If the value of the indicator is below 100%, explain the situation.

2.2.1.6 **INDICATOR 2**

State the number of pharmaceutical products that are registered exclusively for exportation.

2.2.2 Quality control

2.2.2.1 State names and addresses of laboratories that are approved for performing quality control of pharmaceuticals.

2.2.2.2 Which drugs were subjected in 1992 to quality control in laboratories and upon which criteria were these drugs selected; was there any special programme of control of pharmaceuticals intended for exportation?

2.2.2.3 Total number of samples sent for quality control in 1992 and how many of them passed (in %); state main reasons for rejection.

2.2.2.4 When are samples collected and forwarded for analysis:

- before registration? Yes No
- before an export licence is issued? Yes No
- during post-marketing surveillance? Yes No
- after a complaint from the importing country is received? Yes No
- other reasons (explain)

2.2.3 Pharmaceutical inspection

2.2.3.1 Where is the inspectorate located? At central, federal or regional state level?

2.2.3.2 Is there a special group of inspectors who are specialized in the inspection of manufacturers? Yes No

If Yes: give number and explain details

2.2.3.3 How often are drug manufacturers and wholesalers inspected?

2.2.3.4 Is a report produced after each inspection? To whom is it sent?

2.2.3.5 Do the inspectors have special instructions or control programmes related to products for exportation?

If Yes: explain

2.2.3.6 Are there any systems in force of mutual recognition of inspections with other countries?

If Yes: explain details.

2.2.4 Reporting of side-effects

2.2.4.1 Is there any formal system for reporting side-effects of drugs?

2.2.4.2 *If Yes,* briefly explain its organisation.

2.2.5 Drug recalls

2.2.5.1 Is there any formal system for reporting of complaints concerning quality of drugs?

If Yes: explain

- where is it located?
- what was the number of complaints registered in 1992?

2.2.5.2 Is there any formal system of drug recalls?

If Yes:

- describe how it is operating.
- describe how is it organized.

3. OPERATION OF THE WHO CERTIFICATION SCHEME

3.1 Formal status of the country in respect of the Scheme

3.1.1 Date of participation.

3.1.2 Designation and address of the competent authority (is the information provided to the WHO Secretariat still correct?)

3.2 Origin and type of certificates issued

3.2.1 Certificates issued by the competent authority.

**Use of the WHO Certification Scheme on the Quality of
Pharmaceutical Products Moving in International Commerce**

- 3.2.2.1 WHO-type product certificates.
- version 1975 Yes No
- version 1988/1992 Yes No
- 3.2.1.2 WHO-type Statement of Licensing Status of a Pharmaceutical Product
Yes No
- 3.2.1.3 Non-WHO type certificates (discouraged by WHO guidelines)
- free sale certificates Yes No
- GMP certificates that are not product specific
(i.e. issued for a manufacturer generally) Yes No
- 3.2.1.4 Batch certificates Yes No
- 3.2.2 Certificates issued by manufacturers/exporters
- 3.2.2.1 WHO-type batch certificates Yes No
- 3.2.2.2 Analytical certificates Yes No
- 3.3 Format of product certificates used by the competent (certifying) authority and procedures related to their issue
- 3.3.1 Type of certificate used (see item 3.2.1.1.)
- 3.3.2 In what language(s) is the certificate issued?
- 3.3.3 Does the form for the certificate contain a WHO emblem?
If Yes, was any prior agreement obtained from any WHO unit?

Use of the WHO Certification Scheme on the Quality of
Pharmaceutical Products Moving in International Commerce

3.3.4 Does the certificate contain any mention that its format is established in accordance with WHO recommendations?

3.3.5 Does the certificate contain a date of its issue?

3.3.6 Is an official seal (stamp) placed on the certificate? If the certificate contains more than one page, is the seal placed on each page?

3.3.7 Are any steps taken (use of special paper for the form, special type of print, etc.) to prevent counterfeiting?

3.3.8 How many copies of a certificate are issued? If more than one, explain the destination of each copy.

3.3.9 Is the certificate issued free of charge? Yes No

If No: what is the amount of the fee?

3.3.10 How are the copies of issued certificates filed by the issuing office?

- by product? Yes No

- by manufacturer? Yes No

- other (specify):

3.4 Use of certificates for exported products

- 3.4.1 Does any formal administrative control over the exportation of pharmaceutical products exist? Yes No

If Yes, what authority is responsible for such control?

- 3.4.2 Is the issue of a WHO-type certificate a condition for obtaining an export licence?

If No, are exporters generally interested in obtaining product certificates on a voluntary basis?

- 3.4.3 If the interest of exporters in obtaining product certificates on a voluntary basis is slight, what are the principal reasons?

- 3.4.4 What is the usual procedure when a request for a product certificate is received by the certifying authority? Give details of contacts with the registration authority and pharmaceutical inspection.

- 3.4.5 What is the procedure when consecutive stages of manufacture of the product take place at different plants, especially if such plants are located abroad?

- 3.4.6 Were special guidelines issued for manufacturers and exporters on the procedure to obtain a WHO-type product certificate?

If Yes, attach a copy.

3.4.7 **INDICATOR 3**

Give the total number of WHO-type product certificates issued in 1992 by the competent authority (see item 3.2.1.1.).

3.4.8 **INDICATOR 4**

Give the number of manufacturers and wholesalers which obtained product certificates for their products in 1992.

3.4.9 Are product certificates issued also for products that are not registered for the use of the country?

If Yes, what are the reasons and how it is indicated in the certificate?

3.4.10 **INDICATOR 5**

Give the number of product certificates issued in 1992 for products not registered for use in the country.

- manufactured in the country? Yes No

- manufactured abroad? Yes No

3.4.11 Are requests for product certificates sometimes rejected by the certifying authority?

If Yes, what are the principal reasons?

3.4.12 **INDICATOR 6**

Give the number of requests for product certificate rejected by the certifying authority in 1992.

3.4.13 Are there cases when a product certificate is requested more than once for the same product (certificate renewal)?

If Yes, what are the reasons and is there a usual validity period for a certificate?

3.4.14 What events are considered important enough to inform the importing country about changes in the approval status of the product or the status of its manufacturer:

- | | | |
|--|------------------------------|-----------------------------|
| • Renewal of product licence | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| • Modification in the product licence | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| • Changes in the manufacturer's licence | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| • Negative results of an inspection in
the manufacturer's plant | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| • Other reasons (specify) | | |

3.4.15 Is the information on issues mentioned in item 3.4.14 communicated to exporters?

If Yes, describe the procedure.

3.4.16 Is there a post-marketing surveillance system for the quality of pharmaceutical products and does it include the analysis of samples of exported products?

3.4.17 **INDICATOR 7**

Give the number of products rejected in 1992 when testing samples in the course of post-marketing surveillance for which product certificates have been issued.

3.5 Contacts with the authorities in importing countries

3.5.1 Were there in 1992 any direct contacts with the competent authorities in importing countries?

Yes No

If Yes, list the countries.

3.5.2 Are requests for a product certificate received sometimes directly from the competent authority of importing countries?

Yes

No

If Yes, list the countries.

3.5.3 Were any requests for information on pharmaceutical products or manufacturers received in 1992 from competent authorities of importing countries according to the WHO Certification Scheme?

If Yes, describe their type and specify countries.

3.5.4 Were any communications received in 1992 from importing countries on quality failures of exported products which led to opening of an inquiry?

If Yes, give the number of communications and describe more important ones.

3.5.5 **INDICATOR 8**

State the percentage of cases when the complaint was confirmed after testing product samples taken from the manufacturer or found on local market.

3.6 New format of WHO-type certificates introduced in 1992 guidelines

3.6.1 Is the new format of certificates already in use? Yes

No

If Yes, since when?

If No, is their use under consideration?

3.6.2 What are the opinions about the new formats?

ANNEX 8

Protocol for the Assessment of the Use of the WHO Certification Scheme in an International Supply Organization

1. GENERAL DATA ON THE ORGANIZATION

1.1 Name of organization; location of principal warehouses

1.2 General information on the activities

1.3 Economic Aspects

1.3.1 Total value of pharmaceuticals supplied in 1992.

1.3.2 Number of purchasing countries; list the main recipient countries giving the value of products purchased in 1992.

1.3.3 Payment modalities.

1.3.4 Level of prices and procedures used for their establishment.

2. FUNCTIONING OF PROCUREMENT AND QUALITY ASSURANCE MECHANISMS

2.1 Give main sources of supply

- number of manufacturers from which pharmaceuticals were purchased in 1992.
- main countries where these manufacturers were located.

2.2 In what way are contacts established with suppliers?

- by open tender.
- by a restricted tender.

- by using a group of permanent suppliers.

2.3 In what manner are quality specifications for procured pharmaceuticals formulated? (describe)

2.4 In what way is the quality of purchased products controlled?

- | | | |
|---|------------------------------|-----------------------------|
| <ul style="list-style-type: none"> • by analysing purchased products | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <input type="checkbox"/> <ul style="list-style-type: none"> • every batch | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <ul style="list-style-type: none"> • selected batches only | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <ul style="list-style-type: none"> • by reviewing batch certificates issued by the manufacturers | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <ul style="list-style-type: none"> • for every batch | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <ul style="list-style-type: none"> • for selected batches only | Yes <input type="checkbox"/> | No <input type="checkbox"/> |

3. USE OF QUALITY CERTIFICATES INCLUDING WHO CERTIFICATION SCHEME MECHANISMS

3.1 Are WHO-type product certificates requested and received from suppliers?

- | | | |
|---|------------------------------|-----------------------------|
| <ul style="list-style-type: none"> • for every product | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <ul style="list-style-type: none"> • for some products but regularly | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <ul style="list-style-type: none"> • infrequently (explain) | | |

3.3 INDICATOR 1

Give the number of product certificates received in 1992.

3.4 Are product certificates attached to consignments of distributed products?

Yes

No

3.5 Are batch certificates attached to consignments of distributed products?

Yes

No

4. **OPINIONS OBTAINED IN THE ORGANIZATION ABOUT QUALITY ASSURANCE ISSUES IN RELATION TO DISTRIBUTED PHARMACEUTICAL PRODUCTS**

4.1 Is the present system of quality assurance used by the organization considered as satisfactory?

Yes

No

If No: how should it be modified?

4.2 Can the use of the WHO-type product certificates and batch certificates be expanded?

Yes

No

If No: what are the difficulties?

4.3 Is the level of quality analysis of samples of distributed products (see item 2.4) considered as satisfactory?

Yes

No

If No: how can it be improved?

ANNEX 10

Summaries of Mission Reports on the Assessment of the Use of the WHO Certification Scheme

A. IMPORTING COUNTRIES

Benin

1. Population

5 million in 1992.

2. Pharmaceutical import and consumption

Total imports of pharmaceuticals in 1992 were US\$ 18.96 million. Major countries of origin were France 95% and other European countries 5%.

The value of drug consumption in public sector and private sector in 1992 amounted to US\$ 2.9 and US\$ 24.864 million respectively. The public sector budget in 1992 was US\$ 4 million. The contribution to the public sector budget from national resources and from external assistance was 65% and 35% respectively.

3. Drug policy and essential drugs list

There is a written national drug policy approved in 1991. The policy has provisions for regulatory control, drug registration, drug procurement and quality assurance. A plan known as the "National Pharmaceutical Plan: Priority plan for a three year period (1994-1996)", was developed in March 1993 for the implementation of the drug policy. However, the plan was not being adhered to at the time of the visit.

The National Essential Drugs List for Benin was developed in December 1990 and it is being used for procurement in the public sector. It comprises 203 products.

4. Infrastructure and functioning

4.1 Regulation and registration

The Pharmacy and Laboratory Department of the Ministry of Health is responsible for the registration of drugs, surveillance of movement of hard drugs, control of establishments and maintenance of daily statistics and documents. There are several decrees and regulations enacted by the government between 1975 and 1988 to regulate drugs. Regulations for drug registration were promulgated and put into action on 27 January 1975. Regulations related to drug quality do not exist.

The Drug Registration Division of the Pharmacy Department is responsible for the registration of drugs, and all pharmaceutical products imported by the private sector were registered at the time of the mission. However, this does not take into consideration the significant number of illicit drugs available on the market.

4.2 Public and private procurement

The Central Medical Stores of Benin under the Ministry of Health procures and distributes drugs for the Public Sector. In addition, there are three wholesalers which import and distribute drugs for the private sector.

Procurement methods used for the public sector include: open and restricted tender; negotiated procurement; direct purchase from manufacturers/agents and international suppliers. The public sector also receives donations in kind.

In 1992, 26 products were procured from manufacturers in France and 60 were received from IDA and UNITRA.

Private sector importers purchase direct from wholesalers abroad. In 1992, 3500 products were procured by the private sector from wholesalers in France.

4.3 Inspection

The Inspection Division of the Pharmacy Department is responsible for the inspection of drug establishments.

4.4 Quality control of drugs

Benin has no drug quality control laboratory. In 1992, a total of five samples was sent by the Central Medical Stores to DHT Pharma Laboratory in France for quality control and all the samples passed. There are no clearly set criteria for regular quality control of drugs. In general, samples are collected and sent for analysis after receipt of drugs but before payment, and also after receipt and after payment. Drugs imported by the private sector are not tested and there is no system for health personnel to report complaints regarding drug quality.

5. **Operation of the WHO Certification Scheme**

Benin accepted the WHO Certification Scheme on 24 November 1982. The competent authority is Ministère de la Santé publique, Direction des Pharmacies, B.P. 2048 Cotonou. The WHO list of competent authorities was not available at the time of the mission.

Registration of drugs is carried out but the receipt of a Certificate of a Pharmaceutical Product as recommended by WHO is not formally laid down as a requirement for drug registration. Certificate of authorization for sale in the country of origin is requested for the registration of drugs. Competent authorities in exporting countries are contacted directly or through local agents, importers and manufacturers. Information on registered drugs is not communicated to customs authorities, public sector procurement authorities/retailers or others.

Request for a Certificate of a Pharmaceutical Product is not laid down in official procurement specifications. However, certificates of analysis are requested from manufacturers, wholesalers and international suppliers at the time of calling for tenders and at the time of placing orders. The certificates supplied do not correspond to the type of batch certificate recommended by WHO.

Observations:

- The Scheme is not used as recommended by WHO.
- Pharmaceuticals imported by the public sector are not registered.
- Quality testing of imported pharmaceuticals is not adequate.

Cameroon

1. Population

11.9 million in 1991.

2. Pharmaceutical import and consumption

Data on pharmaceutical import for 1992 were not available during the assessment. Total estimated value of imports in 1991 was US\$ 63 million, and all the drugs came from France.

Drug consumption in 1989 in the public and private sector amounted to US\$ 3.6 and US\$ 112 million respectively. The value of drug consumption of the NGOs during the same year was US\$ 7.2 million. The public sector drug budget in 1989 was US\$ 8 million.

3. Drug policy and essential drugs list

Cameroon has no written and approved national drug policy, however elements of a national drug policy such as drug registration, quality control, drug procurement and regulatory control are being implemented.

The country has an essential drugs list called Liste nationale des Médicaments essentiels utilisés dans les Formations sanitaires, developed in 1990. It is being used in the procurement of drugs for the public sector. The list contains 120 products.

4. Infrastructure and functioning

4.1 Regulation and registration

Legislation on drug regulation exists. The Law No. 90 035, promulgated in 1990, relates to the activities of the pharmacy profession. Amendment No. 007, dated 13 July 1981, has legislation for the licensing of pharmaceutical specialities. Guidelines for registration were developed in 1981 and registration started the same year.

The Pharmacy Department in the Ministry of Health is responsible for drug registration, inspection and drug legislation activities.

About 90% of the products were registered at the time of the assessment. The figure does not include drugs imported into the country illegally.

4.2 Public and private procurement

The Office of National Pharmaceutics (ONAPHARM) under the Ministry of Health procures and distributes drugs for the public sector. Drugs are procured by means of restricted tender. Importation by ONAPHARM stopped in 1992. Donors also supply in kind.

There are five private importers purchasing drugs direct from wholesalers abroad. In 1992, about 3000 products were procured by the private sector from wholesalers in France.

4.3 Quality control of drugs

The quality control laboratory of ONAPHARM is responsible for testing the quality of drugs.

In 1992, 32 samples of the most commonly used drugs were sent for quality control and about 90.6% passed the tests. There are no criteria set for the regular quality control of drugs. In general, samples are collected and sent for analysis after receipt and payment and testing is done locally by the National Quality Control Laboratory.

Drugs imported by private sector are not subjected to quality control and there is no system for health personnel to report complaints regarding drug quality.

4.4 Inspection

The Inspection Office of the Pharmacy Department inspects the different drug establishments in the country.

5. **Operation of the WHO Certification Scheme**

Cameroon signed the Scheme in 1982 and the responsible authority is the Pharmacy Department of the Ministry of Health located in Yaoundé. The WHO list of competent authorities was not available at the time of the mission.

Since 1992, receipt of a Certificate of a Pharmaceutical Product is indicated as a prerequisite for drug registration in the guidelines. Since the system only started in 1993, the elements used are not precisely known and there is no specific indication as to the type of certificates needed. Information on drugs registered is not communicated to customs officers, public and private importers, and others. Contact with competent authorities in exporting countries is made directly.

Observations:

- The Scheme is not used in drug procurement in the public and private sector nor in drug registration.
- Quality testing of pharmaceuticals is not adequate.

Central African Republic

1. **Population**

3 million in 1992.

2. **Pharmaceutical import and consumption**

Total pharmaceutical imports in 1992 were estimated at US\$ 16.3 million and the major countries of origin and the respective shares from the total imports were: Denmark 5%, France 90% and Switzerland 5%.

Drug consumption in the public and private sector during the year amounted to US\$ 1.246 and US\$ 9.052 million respectively. The value of drug consumption of the NGOs in 1992 was US\$ 0.016 million. The total public sector drug budget in 1992 was US\$ 1.72 million and the contributions from national and external sources were 33% and 67% respectively.

3. **Drug policy and essential drugs list**

There is no written and approved national drug policy but elements of a national drug policy such as procurement and inspection are being implemented. There is an essential drugs list developed in 1992 but it is not yet official. The list contains 203 products and is being used for procurement of drugs for the public sector.

4. **Infrastructure and functioning**

4.1 Regulation and registration

There was no drug regulatory authority nor drug legislation at the time of the mission. Only draft regulations for registration existed.

4.2 Public and private procurement

The Central Medical Stores, under the Direction générale de la Santé publique (General Direction of Public Health) of the Ministry of Health, procures and distributes drugs for the public sector.

Drugs are procured in the public sector directly from manufacturers/agents and wholesalers abroad and in the country. There is also donors' supply in kind. In 1992, about 10 products were bought from manufacturers and their agents in France.

There are three wholesalers importing and distributing drugs to 25 pharmacies. They buy drugs directly from manufacturers/agents and wholesalers abroad. In 1992, about 3000 products were procured from manufacturers and wholesalers in France.

4.3 Quality control of drugs

There is no drug quality control laboratory in the country. Drugs imported are not tested to ensure their quality and there is no system for health personnel to report complaints regarding drug quality.

4.4 Inspection

The Pharmaceutical Inspection Service of the MOH inspects drug establishments in the country.

5. **Operation of the WHO Certification Scheme**

The Central African Republic accepted the Scheme on 22 July 1980 and the responsible authority is the Pharmacy Inspection Service of the MOH in Bangui. The WHO list of competent authorities was available at the time of the mission.

Observations:

- The Scheme is not being used.
- A drug regulatory authority does not exist.

Ecuador

1. Population

10 million in 1992.

2. Pharmaceutical import and consumption

Total imports of pharmaceuticals in 1992 were estimated to be US\$ 140.1 million. The major exporting countries were Germany 25%, Spain 7%, Switzerland 8% and USA 59%. The consumption of drugs in the public and private sector in 1992 amounted to US\$ 2.5 and US\$ 150.1 million respectively. The total drug budget for the public sector in 1992 was US\$ 3.4 million.

3. Drug policy and essential drugs list

Ecuador's national drug policy is stipulated in the Executive Order 2007, Official Register No. 570, dated 26 November 1990. The document encompasses general guidance regarding pharmaceutical production, supply, regulatory control, dispensing and policies related to medical assistance programme.

There is an essential drugs list called " National Essential Drugs List" developed in 1992. The list comprises 438 substances and is being used for procurement in the private sector.

4 Infrastructure and functioning

4.1 Regulation and registration

Drug registration and regulatory activities are described in the Code of Health, Official Register No. 158, 1971, and the Regulation for Medications, Cosmetics and Hygiene Products, Ministry Accord 8022, Official Register No. 391, dated 1 August 1977. The majority of Ecuador's drug laws and regulations are currently under revision due to the complexity of the administrative process and the lack of adequate resources and trained personnel. Among the changes planned are the rewriting of the February 1971 Code of Health and the adoption of a new Medications Law, incorporating supply and regulatory concerns. The latter was drafted by the National Health Board and is currently under review by the Ministry of Public Health.

Registration of drugs in Ecuador is primarily an administrative procedure whereby applicants are legally required to present samples of pharmaceutical products for analysis by the National Institute of Hygiene and Tropical Medicine. Registration of drugs was introduced in 1971 and the percentage of drugs registered at the time of the mission was 98% .

The Cooperative Programme between Ecuador, WHO, PAHO and the Netherlands, has contributed to the development of computerized registration systems. The government has also begun to implement a programme for generic drugs that provides special procedures for the procurement, control and registration of this category of drugs.

4.2 Public and private procurement

In the public sector procurement is done by the Centro Estatal de Medicamentos e Insumos Médicos (CEMEIM). It distributes to all public health institutions, to include hospitals, health centres, official pharmacies, etc.

The Ecuadorian Social Security Institute purchases pharmaceuticals for its direct affiliates, employing a basic drugs list different from the National Essential Drugs List.

In the public sector procurement is done by means of open tender and direct purchase from manufacturers/agents and international supply agencies. In 1992, about 110 products were purchased from manufacturers/agents. Drugs were also obtained from UNICEF during the same year.

In the private sector drugs are procured directly from wholesalers abroad. The main suppliers in 1992 were Germany, Spain, Switzerland and USA.

4.3 Quality control of drugs

The National Institute of Hygiene and Tropical Medicines Estate Laboratory, Guayaquil tests the quality of drugs. In 1992, 36 samples were sent for testing and 75% passed the tests. Samples are usually sent for testing after receipt of drugs but before payment and following complaints. Quality control of drugs during procurement is limited due to shortage of adequate laboratory facilities and lack of clear public policies within the respective organizations.

Drugs imported by private sector are tested on a small scale only. In 1992, samples of 18 products were analyzed and nine samples failed.

4.4 Inspection

The Dirección Nacional de Control Sanitarios under the Ministry of Public Health is responsible for inspection.

5. **Operation of the WHO Certification Scheme**

Ecuador accepted the WHO Certification Scheme in 1985 and the competent authority is the Dirección General de Salud Pública, Ministerio de Salud, Juan Larrea 444, Quito.

The receipt of a Certificate of a Pharmaceutical Product is not a prerequisite for drug registration. But a Free Sale certificate is requested. Certificates lacked information regarding periodic inspections, product information and labelling. The majority of the certificates reviewed during the assessment were found to have been issued by health officials from city, state and provincial governments. Drug importers, distributors and manufacturers had a vague understanding of the Scheme during the assessment.

In the public sector tenders administered by CEMEIM, participants can only offer pharmaceuticals that have previously been registered in Ecuador. Companies are also required

to present copies of the Free Sale certificates that were issued when the products were initially registered.

Observations:

- The WHO Certification Scheme is not properly utilized.
- Private sector importers, distributors and exporters have very little knowledge regarding the Scheme.
- Information is not provided regarding labelling and therapeutic indications.
- Ecuador currently lacks the capability to issue export certificates that attest to GMP compliance of local pharmaceutical plants.

Fiji

1. Population

750,000 in 1992.

2. Pharmaceutical import and consumption

Total imports of pharmaceuticals in 1992 were estimated to be US\$ 5 million and the major countries of origin were: Austria, Germany, Hong Kong, India, Malaysia, Singapore and UK.

Drug consumption in the public and private sector during the year amounted to US\$ 48 and US\$ 3 million respectively. The value of drug consumption of the NGOs in 1992 was US\$ 2 million. The total public sector drug budget in 1992 was US\$ 3.4 million and the contributions from national and external sources were 90% and 10% respectively.

3. Drug policy and essential drugs list

Fiji has no written and approved national drug policy but elements of a national drug policy such as drug procurement and drug selection are being implemented.

There is an official essential drugs list called Drug List of the Government Pharmacy, developed in 1991. The list contains 300 products and is used for procurement of drugs in the public sector.

4. Infrastructure and functioning

4.1 Regulation and registration

The Pharmacy and Poisons Act of 1938 (amended in 1983) is the legal instrument used in the control of drugs in Fiji. There are no regulations related to drug registration or drug quality. The Pharmacy and Poisons Board is responsible for the licensing of pharmacies.

There is no drug registration as such but establishment of a registration system is envisaged although no decision has been taken.

4.2 Public and private procurement

Procurement of drugs in the public sector is carried out by open tender by the Government Pharmacy which operates on a separate arrangement under the National Drug Bulk Purchasing Scheme and by means of direct purchase from manufacturers and wholesalers through Crown Agents in UK. In 1992, a total of 400 products was procured and the countries of manufacture were Austria, Germany, Singapore and UK. Also, drugs were bought from wholesalers in New Zealand and UK.

Procurement for the private sector is done by three large drug wholesalers and about 20 retail pharmacies. The private sector covers 30% of the national demand.

4.3 Quality control of drugs

There is no laboratory service. In 1992, five samples of products were sent for quality testing to the University of South Pacific, Suva. Samples are usually sent for testing after receipt and after payment, and following complaint.

Drugs imported by private sector are not subjected to quality control and there is no system for health personnel to report complaints regarding drug quality.

4.4 Inspection

There is no inspection service.

5. **Operation of the WHO Certification Scheme**

Fiji accepted the Scheme on 30 December 1980 and the responsible authority is the Chief Pharmacist, Government Pharmacy, P.O. Box 106, Suva. The name and address of the competent authority is included in the last issue of the WHO Secretariat list.

Certificate of a Pharmaceutical Product and batch analytical certificates are requested for each product submitted for tender in the public sector. The documents are requested from manufacturers or their agents at the time of calling for tenders. Guidelines on how to obtain these documents are given to importers. In practice, the requirement is applied especially when the supplier is providing a given product for the first time. A batch certificate is not required in the case of products purchased by Crown Agents. In 1992, Certificates of a Pharmaceutical Product were obtained for 15% of the products included in the tender. The Scheme is not used in the private sector.

Observations:

- There is no drug registration system.
- The Scheme is applied partially to drugs imported by the public sector.
- No regulatory control over drugs imported by the private sector.
- No quality testing done on drugs received through the private sector.
- Batch analytical certificates received from manufacturers do not refer to the relevant Certificate of a Pharmaceutical Product as recommended by WHO.
- Sometimes, designations of authorities on certificates differ from those given in the WHO list.

Jamaica

1. Population

2.4 million in 1992.

2. Pharmaceutical import and consumption

Imports of pharmaceuticals in 1992 were estimated to be US\$ 19.5 million. Main exporting countries were: Canada 10%, Switzerland 4%, UK 30% and USA 21%. Consumption in 1992 in the public and private sector amounted US\$ 3 and US\$ 20.5 million respectively. The estimated public sector drug budget for 1992 was US\$ 4.9 million and the national contribution and the external assistance were 64% and 36% respectively.

3. Drug policy and essential drugs list

There is no written and approved national drug policy but elements relating to drug regulatory control, drug registration, drug procurement are being practised.

The VEN List (Vital, Essential, Necessary) formulated in 1986 comprises 395 products. The list is being used in the procurement of drugs for the public sector.

4. Infrastructure and functioning

4.1 Regulation and registration

Drug registration and regulatory activities are described in the Food and Drugs Act of 1964, the Pharmacy Act of 1966, and the Food and Drugs Regulations of 3 March 1975. The latter is related to drug registration and has been amended by the Food and Drug Regulations of September 1992.

The Pharmaceutical Services Division within the Ministry of Health is responsible for pharmaceutical regulatory activities such as, registration, issuing of licenses, control of post registration activities, inspection, and sending random samples for testing by the Government Chemist/Caribbean Regional Drug Testing Laboratory.

Registration of drugs was introduced in 1975 and the percentage of drugs on the market registered at the time of the mission was 98%.

4.2 Public and private procurement

The Jamaican Commodity Trading Company Limited conducts importation of pharmaceuticals on behalf of the government.

There are 14 wholesalers importing and distributing drugs for the private sector.

In the public sector drugs are procured by means of open and restricted tender, negotiated procurement, direct purchase from manufacturers, wholesalers, and international suppliers. Also, donors supply in kind.

In 1992, about 250 products were purchased from manufacturers and their agents in Canada, France, Hungary, Panama, Puerto Rico, Trinidad, UK and USA. In addition, drugs were also bought from UNICEF and wholesalers abroad and donations were also received.

In the private sector the methods of procurement include negotiated procurement and direct purchase from wholesalers abroad. A total of 850 products were procured in 1992 from Canada, France, Hungary, Panama, Puerto Rico, Trinidad, UK and USA.

4.3 Quality control of drugs

The Government Chemist Laboratory tests the quality of drugs.

In 1992, 51 samples were sent for quality control and about 80% passed the tests. There is a post registration surveillance system in operation. Samples are collected and sent for analysis at the time of bidding and after receipt and after payment.

Drugs imported by the private sector are tested for their quality by the government on a small scale only. Post registration surveillance is also done on a small scale. There is no system for health professionals to report complaints regarding drug quality.

4.4 Inspection

There is inspection of pharmaceutical establishments.

5. **Operation of the WHO Certification Scheme**

Jamaica accepted the Scheme in 1980 and the responsible authority is the Director of Pharmaceutical Services, Ministry of Health and Social Security.

The receipt of a Certificate of a Pharmaceutical Product is not indicated as a prerequisite for drug registration in legislation, regulations and guidelines.* But a Free Sale certificate is requested for drug registration. Contacts with competent authorities are through importers and manufacturers. Information on drugs registered in the country is not communicated to relevant institutions.

Request for a Certificate of a Pharmaceutical Product is not laid down in official procurement specifications. A Free Sale certificate is requested from manufacturers and their agents at the time of calling for tenders. But, guidelines on how to get the certificates are not given to importers. Certificates obtained are filed by product. All suppliers participating in tender are required to have their products registered in Jamaica. Tender committees do not, generally, award a tender for products that are not registered.

**Use of the WHO Certification Scheme on the Quality of
Pharmaceutical Products Moving in International Commerce**

* Since the assessment, a Certificate of a Pharmaceutical Product is routinely requested.

All drugs imported by the private sector are required to be registered and a Free Sale certificate is a prerequisite for registration.

Observations:

- A Certificate of a Pharmaceutical Product is not requested in drug registration as recommended by WHO.
- Only a partial certification system is in place that fails to provide important information regarding pharmaceutical products offered for registration. The majority of the certificates lack information regarding the frequency and magnitude of inspection of the manufacturing plants by the competent regulatory authorities in the exporting country.
- The majority of the certificates were issued by health officials from the city, state and provincial governments and not by the competent authority in the exporting countries.
- Local drug importers and distributors have a very vague understanding of the WHO Certification Scheme.
- Quality control tests are performed both on drugs randomly selected and on drugs about which questions arise regarding quality, potency, label, etc.

Kenya

1. Population

24 million in 1992.

2. Pharmaceutical import and consumption

Total imports of pharmaceuticals in 1992 were valued at US\$ 122.5 million and the major countries/areas of origin were: Europe (excluding UK) 20%, India 40%, Pakistan 7%, UK 20%, USA 7% and Zimbabwe 6%.

Drug consumption in the public and private sector during the year amounted to US\$ 103.3 and US\$ 52.7 million respectively. The value of drug consumption of the NGOs in 1992 was US\$ 10.8 million. The total public sector drug budget in 1992 was US\$ 39.8 million and the contributions from national and external sources were 67.70% and 32.30% respectively.

3. Drug policy and essential drug lists

The Kenya National Drug Policy was drafted in October 1993.* It has all the elements relating to regulatory control, drug registration, drug procurement and quality assurance.

There is an official essential drugs list developed in 1993. The list has 195 products and is being used for procurement of drugs in the public sector.

4. Infrastructure and functioning

4.1 Regulation and registration

The Pharmacy and Poisons Act of 1957 and the revisions made in 1972 and 1989 are the legal instruments used in the control of drugs in Kenya. The Pharmacy and Poisons Rules (Registration of Drugs), 1981 (revised 1983) applies to the registration of drugs in Kenya.

The Pharmacy and Poisons Board established under the Pharmacy and Medicines Act Chapter 244 is responsible for the registration of pharmacy professionals, drug registration, issuance of licenses for manufacturers, wholesalers, and retail pharmacies. The Board is assisted by the Division of Pharmaceutical Services under the Ministry of Health.

There is a unit within the Pharmacy Division of the MOH responsible for registration of drugs. The Technical Evaluation Committee, which is part of the Board, assists in the evaluation and registration of drugs. The Board is responsible for the approval of registration of drugs.

Drug registration started in 1982 but the precise number of products on the market is not known. The percentage of pharmaceutical products registered at the time of the mission was 50%. There is also an illicit market.

* The National Drug Policy was adopted in July 1994.

4.2 Public and private procurement

The Medical Supplies Coordinating Unit of the Ministry of Health procures drugs for the public sector. Procurement is done by means of open and restricted tender. Sometimes, donors also supply in kind. A total of 58 products was procured in 1992 and the countries of manufacture were Canada, China, Denmark, France, Germany, Sweden and USA. Also, 85 products were bought from IDA.

There are 135 licensed private importers importing and distributing drugs to the private sector. Drug importation in the private sector is done by 135 licensed private importers who purchase directly from manufacturers and wholesalers abroad. In 1992, 2000 products were purchased by the private sector from Austria, China, Denmark, Germany, India, the Netherlands and UK.

4.3 Quality control of drugs

The Drug Analysis Research Unit (DARU) under the University of Nairobi, the Kenya Medical Research Institute (KEMRI) and the Government Chemist are engaged in the testing of drugs. The MOH is also in the process of establishing its own laboratory. In 1992, 24 samples were sent for testing and 70.8% passed the test. Drugs are sent for testing at the time of tender evaluation and sometimes at the time of receiving consignments and following complaints. There are no established criteria for sample selection.

Drugs imported by private sector are tested for quality by the regulatory authority. But it is not done often. There is no system for health personnel to report complaints regarding drug quality.

4.4 Inspection

The Inspection Department of the Pharmacy Division inspects premises.

5. **Operation of the WHO Certification Scheme**

Kenya accepted the Scheme on 1 January 1985 and the responsible authority is the Director of Medical Services of the MOH. The name and address of the competent authority is included in the WHO Secretariat list.

Only drugs imported by the private sector are subject to registration. The receipt of a Certificate of a Pharmaceutical Product is not indicated as a prerequisite for drug registration. However, the application for the registration of drugs requires the presentation of a legal certificate of Free Sale from authorities in the exporting country indicating that the product is authorized to be placed on the market in the country of origin. Free Sale certificates are sometimes rejected if the photocopies, stamps and signatures are not clear. Information on registered drugs is communicated through government gazette and contact with competent authorities is made directly. Sometimes, dubious certificates are submitted together with bids which the Central Medical Stores cannot verify due to lack of the WHO list of competent authorities.

Certificate of a Pharmaceutical Product is not indicated as a requirement in procurement guidelines. But, the tender guidelines for 1992/1993 specify that drugs not registered in Kenya should be accompanied by evidence of registration from the country of origin. The document is requested from manufacturers or their agents at the time of calling for tenders. Guidelines on how to obtain the document are not given to importers.

The Scheme is not used as recommended by WHO. A Free Sale certificate is required in the private sector.

Observations:

- The Scheme is not used as recommended by WHO.
- Registration does not cover the public sector.
- There is an illicit market.
- Laboratory testing of drugs is not done regularly to ensure the quality of drugs received.
- Consignments are not always accompanied by batch certificates.
- Personnel working in registration and procurement systems knew little about the Scheme.

Malawi

1. Population

8 million in 1992.

2. Pharmaceutical import and consumption

Total imports of pharmaceuticals in 1992 were estimated to be US\$ 9 million. The major areas/countries of origin and the respective shares from the total imports were: Canada 3%, Cyprus 4%, Germany 30%, India 8%, Netherlands 7%, PTA 6%, South Africa 20% and UK 22%.

Drug consumption in the public and private sector during the year amounted to US\$ 5.7 and US\$ 3.3 million respectively. The total public sector drug budget in 1992 was US\$ 5.7 million and the contribution of national and external sources were 53% and 47% respectively.

3. Drug policy and essential drugs list

Malawi has a written and approved national drug policy developed in 1991. It covers all aspects related to drug regulatory control, drug registration, drug procurement, and quality assurance. A plan called National Pharmaceutical Plan, 1990-1995, dated 1991, exists and is in the process of being implemented.

There is an official essential drugs list, the Malawi Essential Drugs List, developed in 1991. The list contains 311 products and is being used for procurement of drugs for the public sector.

4. Infrastructure and functioning

4.1 Regulation and registration

The Pharmacy, Medicines and Poisons Act, 1978 and the Pharmacy, Medicines and Poisons (Fees and Forms) Regulations 1990, empower the Pharmacy, Medicines and Poisons Board established by the Ministry of Health to regulate, register, and control the quality of drugs in Malawi. The Board is also responsible for the registration, ethical control and training of pharmacy professionals. The Board has a Medicines Committee for scheduling and registration of drugs.

Drug registration has not been introduced and there is no unit responsible for this within the Pharmacy Administration of the Ministry of Health.*

* Drug registration, quality control testing and inspection service were introduced after the assessment.

4.2 Public and private procurement

The Central Medical Stores, which comes under the supervision of the Controller of Health, Technical Services of the Ministry of Health, is responsible for procurement of drugs in the public sector. Procurement in the public sector is done by means of open tender and direct purchase from wholesalers abroad and in the country. There is also donors' supply in kind.

In 1992, about 80 products were bought from manufacturers in Canada, Cyprus, Germany, India, Kenya, South Africa and UK. Also, a total of 115 products was purchased from wholesalers in Germany, South Africa, the Netherlands and UK. UNICEF and the Canadian International Development Agency (CIDA) also made donations in kind. There was no quality control test done on the drugs purchased or donated.

In the private sector there are six wholesalers importing drugs through negotiated procurement and direct purchase from manufacturers and wholesalers. There is no control over private sector.

4.3 Drug quality control

There is no laboratory service and drugs received are not tested for their quality.*

4.4 Inspection service

There is no unit within the Pharmacy Administration responsible for inspection; as a result there is no inspection of drug establishments as such.*

5. **Operation of the WHO Certification Scheme**

Malawi signed the Scheme on 13 July 1982 and the responsible authority is the Ministry of Health, P.O. Box 30377, Lilongwe 3. The name and address of the competent authority is included in the last issue of the WHO Secretariat list.

The Scheme is not used either in drug procurement or in drug registration. However, a certificate of analysis is requested during procurement in the public sector.

Observations:

- The Scheme is not used.
- Registration of drugs has not commenced.
- Quality control testing of drugs does not exist.

* Drug registration, quality control testing and inspection service were introduced after the assessment.

Malaysia

1. Population

18 million in 1992.

2. Pharmaceutical import and consumption

Total imports of pharmaceuticals in 1992 were estimated to be US\$ 150 million. Main suppliers were: Australia, France, Germany, Italy, Sweden, UK and USA.

Drug consumption in 1992 in the public and private sector amounted to US\$ 48 and US\$ 172 million respectively. The estimated public sector drug budget for 1992 was US\$ 49 million and the national contribution was 100%.

3. Drug policy and essential drugs list

There is no written and approved national drug policy as such but elements relating to drug regulatory control, drug registration, drug procurement are being practised.

A drugs list developed on 14 May 1983 is being used for procurement in the public sector. The list comprises 1116 products (670 chemical entities). The list is regularly updated following the decisions of the Drug Review Panel at the Ministry of Health, which meets every six months.

4. Infrastructure and functioning

4.1 Drug regulation and registration

The National Pharmaceutical Control Bureau (NPCB) of the Department of Pharmaceutical Services is responsible for drug regulation and registration. Drug regulation is governed by the Sale of Drugs Act of 1952 (revised 1989) and the Drugs and Cosmetics Control Regulations 1984. The Drug Control Authority is responsible for drug registration and consists of ten members appointed by the Ministry of Health. The technical work necessary for drug registration is done by the National Pharmaceutical Control Bureau. Drug registration started in 1985 and the procedure was subsequently modified to its present form in 1992.

Registration documents issued since 1992 specify a five year validity period for registration. The total number of products registered at the beginning of 1993 was 9792, including 5910 prescription only products and 3882 non prescription products. As a matter of policy, only products authorized in the country of origin are accepted. Similarly, only registered products can be imported into the country.

4.2 Public and private procurement

The Government Pharmaceutical Laboratories and Stores (GPLS) procures drugs centrally for the public sector and procurement is done by means of open tender. In 1992, about 347 products were bought from wholesalers through local tendering agents.

In the private sector there are 107 drug importing companies and 315 drug wholesalers. 80% of the drug consumption in Malaysia is provided by the private sector. There are 14 wholesalers importing and distributing drugs for the private sector. In 1992, drugs were also purchased by the private sector from Austria, France, Germany, Italy, Sweden, UK and USA.

4.3 Quality control of drugs

Quality control of drugs purchased by GPLS has been carried out since 1991 by a random selection of items. In 1992, 320 samples of pharmaceutical products received by GPLS were tested, out of which 132 samples (41%) failed the tests. In addition, 132 samples of raw materials were tested in connection with tender offers. Samples are collected at the time of bidding for raw materials; and after receipt but before payment and following complaints for finished dosage forms. Analysis of samples is done locally by the quality control laboratory of GPLS and at the National Pharmaceutical Control Bureau.

Drugs imported by the private sector are not tested by importers. Importers are requiring batch analytical certificates from manufacturers abroad which they file without reviewing them against specifications. The regulatory authorities, on the other hand, subject products imported by the private sector to quality control testing under the Post Registration Market Surveillance Programme. In 1992, some 900 samples of imported and locally manufactured products were analyzed under the programme.

4.5 Inspection

There are pharmacy inspectors in each state who inspect pharmacies, importers and manufacturers.

5. **Operation of the WHO Certification Scheme**

Malaysia accepted the Scheme on 16 April 1982. The responsible authority is the Secretary, Drug Control Authority, National Pharmaceutical Control Bureau, Jalan University, P.O. Box 319, 46730 Petaling, Jaya. The name and address of the authority is included in the last issue of the WHO Secretariat list.

The receipt of a Certificate of a Pharmaceutical Product as well as a GMP certificate is a prerequisite for drug registration in Malaysia. The requirement is formally laid down in guidelines for registration of pharmaceutical products. Since 1985, these requirements have been generally adhered to. In 1992, the percentage of product license applications received for which a Certificate of a Pharmaceutical Product was provided by the applicant either as a single certificate or as two separate certificates, Free Sale and GMP, was 100%. Contact with the competent authorities is made directly. Sometimes certificates are rejected because of non compliance with the WHO 1975 format/content and because of lack of signatures/designations of the certifying authority.

Drugs imported by the public and private sector are registered and in addition batch analytical certificates are required to accompany each batch of biological products and blood products that

are imported by the public and private sectors. In the private sector certificates are filed by importers for presentation to pharmaceutical inspectors.

Contact with competent authorities is through importers and manufacturers. Information on drugs registered in the country is communicated to relevant institutions through an updated list of registered products against payment of a fee. Current printouts of the list are distributed twice a year to enforcement officers and public sector procurement authorities.

Observations:

- Certificates of a Pharmaceutical Product are issued sometimes by local authorities that are neither indicated in the WHO list nor known to be officially empowered to issue certificates.
- Certificates are frequently not available for products manufactured under contract for use outside the country of manufacture.
- Certificates are not obtained for products that are not regulated in the country of manufacture.
- Batch certificates make no reference to the relevant Certificate of a Pharmaceutical Product issued by the regulatory authorities in the exporting country.
- There is no feedback to regulatory authorities in the exporting countries on products that have failed quality control tests.

Myanmar

1. Population

42 million in 1992.

2. Pharmaceutical import and consumption

Total imports of pharmaceuticals in 1992 were estimated to be US\$ 20 million. Main exporting countries were: Australia, China, Germany, India, the Netherlands and Thailand.

Drug consumption in 1992 in the public and private sector amounted to US\$ 5 and US\$ 15 million respectively. The value of drug consumption by NGOs was US\$ 0.5 million. The total public sector drug budget in 1992 was US\$ 49 million.

3. Drug policy and essential drugs list

There is a national drug policy written and approved in February 1991. The policy covers all aspects relating to drug regulatory control, drug registration, drug procurement and quality assurance. There is no plan to implement the policy.

The Essential Drugs List of Myanmar was formulated in June 1989 and is used for procurement in the public sector. The list comprises 208 products.

4. Infrastructure and functioning

4.1 Drug regulation and registration

The National Drug Law was enacted on 30 October 1992. Regulations on drug registration, based on the 1992 Law, exist and are applied in practice but not yet formally enacted. There are no regulations on pharmaceutical inspection and sample testing.

The Drug Advisory Committee (DAC) at the Department of Health is responsible for the registration of drugs. Registration started 1974 but in the present form registration became operational in 1989. In the public sector all the drugs purchased by the Central Medical Stores are registered by DAC. The majority of the drugs imported by the Medicines and Medical Equipment Enterprise are also registered. Registration has not been extended to products imported by private sector.* There are no administrative mechanisms in the Ministry of Health for the surveillance of the quality of products distributed in the free market.

- * Since the assessment, drug registration has been introduced in the private sector and about 50% of the products are registered.

4.2 Public and private procurement

There are three main drug supply channels in Myanmar. Public health units receive drugs from the Central Medical Stores (CMS). Procurement by CMS is made through restricted tender and direct purchase from international suppliers. In 1992, 62 products were purchased from manufacturers in Australia, Germany, Malaysia, Thailand and UK and 164 products from wholesalers.

A parallel distribution system for pharmaceuticals is also in operation under the Ministry of Trade. The Medicines and Medical Equipment Enterprise does the procurement and distribution on behalf of the Ministry of Trade. The majority of the drugs imported by the organization are registered.

Numerous importing companies also operate in the free market by importing drugs from China, India and Thailand through barter arrangements. Procurement in the private sector is through negotiation and direct purchase from manufacturers and wholesalers.

4.3 Quality control of drugs

Quality control of drugs imported by the CMS is limited in most cases to visual inspection by the CMS staff. In recent years, very few samples of products imported by the CMS were actually tested by the Drug Control Laboratory in Yangon and the Laboratory of Myanmar Pharmaceutical Factory in Yangon. Testing is done when external signs of deterioration are seen. Drugs imported by the private sector are not tested.

4.4 Inspection

There is no inspection unit and as a result no inspection of establishments.

5. **Operation of the WHO Certification Scheme**

The Scheme was accepted by Myanmar on 11 September 1979 and the responsible authority is the Director General, Department of Health, Yangon. The address and designations of the competent authority are included in the last issue of the WHO Secretariat list.

The receipt of a Certificate of a Pharmaceutical Product is a requirement for registration of drugs and the requirement is formally laid down in guidelines. The Scheme is applied in the public sector but not in the private sector. In 1992, 84% of product applications received were accompanied by a Certificate of a Pharmaceutical Product. Certificates were sometimes rejected because designations of the authorities on the certificates varied from those indicated on the WHO list.

Contacts with competent authorities are made directly or through importers and manufacturers. Information on drugs registered in the country is communicated to relevant institutions through an updated list of registered products by the Department of Health.

Observations:

- A Certificate of a Pharmaceutical Product is a prerequisite for drug registration.
- Only drugs imported by the public sector are registered at present.
- There is no control over drugs imported by the private sector.
- Quality assurance of marketed drugs is not satisfactory.
- Batch certificates are not requested for imported drugs.
- Designations of authorities on the certificates sometimes differ from those indicated in the WHO list.

Papua New Guinea

1. Population

2.4 million in 1992.

2. Pharmaceutical import and consumption

Pharmaceutical imports in 1992 amounted to US\$ 15 million. Main exporting countries were: Australia 15%, Austria 10%, China 10%, Germany 10%, Hong Kong 5%, India 15%, Singapore 5% and UK 5%.

Drug consumption in 1992 in the public and private sector was US\$ 13 and US\$ 2.5 million respectively. The public sector drug budget for 1992 was US\$ 12 million and the national contribution and the external assistance were 97% and 3% respectively.

3. National drug policy and essential drugs list

There is no written and approved national drug policy but some elements of a national drug policy are being practised.

The Medical Stores Catalogue, 7th edition formulated in 1988, is used for the procurement of drugs in the public sector. The catalogue is based on the WHO Model List of Essential Drugs and is revised by the Pharmacy Advisory Committee of the Department of Health. The list comprises 356 products.

4. Infrastructure and functioning

4.1 Drug regulation and registration

The Therapeutic Substances and Cosmetics Act of 1987 is the legal instrument for the regulation of drugs in the country. There is no drug registration system at present but its establishment is envisaged in the Act of 1987 and regulations necessary for its implementation are at the drafting stage.

4.2 Public and private drug procurement

There are two supply systems in the country. Public and religious health units are supplied by the government distribution system, the Pharmaceutical Supplies Office, under the Pharmaceutical Services of the Department of Health. Procurement by the office is done by means of open and restricted tender, negotiated procurement, and direct purchase from manufacturers and wholesalers. In 1992, 342 products were purchased from manufacturers located in Australia, Austria, China, Germany, Hong Kong, India, Singapore and UK. Drugs were also procured from wholesalers located abroad and locally during 1992.

In the private sector there are five wholesalers which purchase drugs from India, Malaysia and Singapore. Prescribing doctors buy drugs either locally or from abroad. Procurement in the private sector is done by means of negotiated procurement and direct purchase from manufacturers and wholesalers.

4.3 Quality control of drugs

Measures to assure the quality of imported drugs are undertaken only in respect of some products purchased through the public system. This includes requesting of a product certificate with tender documents. This pertains however to new suppliers only and in 1992 such certificates were obtained for only 3% of the products included in tenders. On delivery, products have to be accompanied by analytical certificates. No testing of drug samples is done at the moment although there are laboratory facilities at the University of Technology in Lae.

5. **Operation of the WHO Certification Scheme**

Papua New Guinea accepted the Scheme on 1 September 1982 and the designation and address of the competent authority is: Chief of Pharmaceutical Services, Department of Health, P.O. Box 84, Konedobu.

A Certificate of a Pharmaceutical Product is requested only in the public sector and it is enforced only in those cases when the supplier of a drug was not previously known to the procurement agency. It is generally waived in respect of well established international manufacturers. In case of small volume items, batch certificates are not requested. In the private sector, a Certificate of a Pharmaceutical Product and a batch certificate are not requested.

Observations:

- A Certificate of a Pharmaceutical Product is requested in the public sector.
- Import by the private sector is not controlled and a Certificate of a Pharmaceutical Product is not requested.
- There is no quality control testing done on imported drugs.
- In a few cases, designations on certificates differ from those indicated in the WHO list.
- Countries not listed in the WHO list and not signatory to the Scheme issue certificates.
- Batch certificates issued do not refer to the relevant Certificate of a Pharmaceutical Product.

Sri Lanka

1. Population

18 million in 1992.

2. Pharmaceutical import and consumption

Total imports of pharmaceuticals in 1992 were estimated to be US\$ 30 million. Main exporting countries were: China 5%, Germany 4%, India 25%, Malaysia 4%, Singapore 5%, South Korea 5%, Switzerland 4%, and UK 5%.

Drug consumption in 1992 in the public and private sector amounted to US\$ 20 and US\$ 70 million respectively. The estimated public sector drug budget for 1992 was US\$ 13 million and the national contribution was 100%.

3. Drug policy and essential drugs list

There is no written and approved national drug policy as such but elements relating to drug regulatory control, registration and procurement are being practised.

There is an essential drugs list, first published in 1985 and revised in 1988. The list comprises 350 products and is used for the procurement of drugs for the public sector.

4. Infrastructure and functioning

4.1 Regulation and registration

The Cosmetic, Devices and Drugs Act No 27 of 1980 and Drug Regulations No. 38 of 1984 empower the Drug Regulatory Authority to issue product licenses and carry out other regulatory activities. Drug registration started in 1986 and the Drug Regulations No. 38 of 1984 relate to drug registration.

Evaluation of products is handled by the Drug Evaluation Committee, which is a sub committee of the Technical Advisory Committee headed by the Director of Medical Services. No product can be made available in the country without first being approved by the Drug Evaluation Committee. The percentage of pharmaceutical products on the market which are currently registered is 100%. Customs officers have been informed not to release cargo without a valid import license and original registration certificates. Private sector importers have to refer to the gazette.

4.2 Public and private procurement

In the public sector the State Pharmaceutical Corporation (SPC) is the leading importer and distributor of pharmaceuticals. There are 22 SPC regional distributors and ten retail outlets throughout the country. The Corporation procures by means of open and restricted tender, as well as through direct purchase from wholesalers abroad and in the country. There is also donors' supply in kind. In 1992, the organization purchased 2000 products from manufacturers in China, Germany, India, South Korea, and UK. Vaccines were also purchased from UNICEF.

In the private sector, drugs are procured directly from manufacturers/agents. In 1992, 1900 products were purchased from China, Germany, India, Korea, Malaysia, Singapore, Switzerland and UK.

4.3 Quality control of drugs

The National Drug Quality Assurance Laboratories are responsible for testing the quality of locally manufactured and imported drugs. Laboratory testing is not a requirement at the time of registration. However, testing is done when there are doubts as to the quality of drugs. In 1992, in the public sector, about 600 samples of products were sent for testing to the National Drug Quality Assurance Laboratories and 90% passed the tests. In general, tender items, products manufactured locally and products about which complaints have been made, are sent for testing. Selection of samples is made at the time of bidding, after receipt and after payment, and following complaints. Sometimes samples are sent to the Bureau of Pharmaceutical Laboratories, Kuala Lumpur, Malaysia and to the Medical Department in Norway for testing.

In the private sector, drugs are tested by the drug regulatory authorities in connection with registration. Complaints regarding the quality of drugs imported by SPC are sent to the Technical Unit of the State Pharmaceutical Corporation. In 1992, a total of 25 complaints were received .

4.4 Inspection

The Food and Drug inspectors supervise local manufacturers for GMP certification. But, there is a dire lack of enforcement in the whole set-up.

5. **Operation of the WHO Certification Scheme**

Sri Lanka accepted the Scheme in 1980 and the Director of National Drug Quality Assurance Laboratories is the competent authority designated by the Government.

Sri Lanka has not incorporated the WHO Certification Scheme into its drug control and supply systems. Since 1986, all manufacturers are required to meet GMP status before their products can be considered for registration. Besides, it is mandatory that Certificates of Free Sale from the country of origin accompany each application.

In 1992, GMP and Free Sale certificates were received for all product license applications submitted. Certificates are sometimes rejected on the grounds that signatures are not legible and

that manufacturing licenses are submitted instead of Free Sale certificates. Contact with competent authorities is through intermediaries.

In the public sector, GMP and Free Sale certificates are requested at the time of supplier appraisal. Free Sale and Batch Certificates are requested at the time of calling for tenders. Free Sale certificate is also requested at the time of placing orders. Documents are requested from manufacturers or their agents and are filed by the procurement authority, by product and by manufacturer. When generic products are indicated in a tender document, special facilities such as "fast-track" registration are used.

Moreover, the Tender Committees give preference to Free Sale and GMP certificates when selecting bids. The percentage of products purchased in 1992 for which Free Sale and GMP certificates were received was 95%. The percentage of approved manufacturers that submitted such certificates was 100% and those that submitted batch certificates was also 100%. The percentage of products which failed quality control in 1992 for which Free Sale and GMP certificates were received was 5-10%.

Observations:

- All the drugs imported by the private and public sector are registered.
- A Certificate of a Pharmaceutical Product is not requested as recommended by WHO.
- Free Sale and GMP certificates are requested for drug registration. A batch certificate is required to accompany each batch of an imported drug.
- Sometimes manufacturing licenses are submitted in place of Free Sale certificates and also signatures are not legible.

Tanzania

1. Population

19 million in 1992.

2. Pharmaceutical import and consumption

Pharmaceuticals valued US\$ 38.2 million were imported into the country in 1992. Main exporting countries were: Belgium, Denmark, Germany, Italy, Kenya, the Netherlands, Switzerland and UK.

Drug consumption during the same year in the public sector was US\$ 11.5 million. The total public sector drug budget in 1992 was US\$ 7.1 million.

3. Drug policy and essential drugs list

A national drug policy called "Tanzanian National Drug Policy" was written and approved in 1991. The policy covers all aspects relating to drug regulatory control, drug registration, drug procurement and quality assurance. There is a plan "The Master plan for the Pharmaceutical Sector, 1992-2000, Tanzania, Mainland" developed in 1991. The country is in the process of implementing the policy.

The Tanzanian Standard Treatment Guidelines and the National Essential Drugs List were first formulated in 1981 and revised in 1993. The list is used for procurement of drugs in the public sector and comprises 290 products.

4. Infrastructure and functioning

4.1 Drug regulation and registration

The Pharmaceutical and Poisons Act No 9 of 1978 is the legal instrument for the regulation of drugs in Tanzania. Regulations made under section 71 of the Pharmaceutical and Poisons Act of 1978 were passed in 1990. Based on these regulations, guidelines for notification and process are to be developed in due course.

The Pharmacy and Poisons Board established by the Ministry of Health is responsible for the issuance of licenses to manufacturers, wholesalers, and retail outlets. It also evaluates and registers drugs and regulates the activities of pharmacy professionals. Drug registration is envisaged to start in 1995.

4.2 Public and private procurement

There are three main drug supply channels in Tanzania. The public health units receive drugs from the Central Medical Stores under the Ministry of Health. The National Pharmaceutical Company (NAPCO), a parastatal organization under the Ministry of Trade, imports and distributes drugs to private sector and parastatal health institutions. There are 35 licensed private importers.

Procurement in the public sector is by means of open tender and on special occasions through restricted tender. Specialized products are purchased direct from manufacturers. Drugs are also purchased directly from international suppliers or received as donations in kind. In 1992, 104 products were procured from manufacturers in Belgium, Denmark, Germany, Italy, Kenya, Switzerland and UK and eight products from wholesalers in Germany and UK by the CMS. In the private sector drugs are procured directly from manufacturers and wholesalers.

4.3 Quality control of drugs

The Government Chemist under the Ministry of Health and the laboratory at the Central Medical Stores carry out quality control tests on drugs. Drugs imported by the CMS are rarely tested for quality. In most cases, quality assurance is limited to visual inspection by the CMS staff. In the private sector drugs are sometimes tested by the regulatory authorities. In 1992, a total of 175 samples of products were tested by the Government Chemist Laboratory of which 122 passed, 49 failed and four could not be analyzed due to lack of reagents.

5. **Operation of the WHO Certification Scheme**

The Scheme was accepted by Tanzania on 27 June 1978 and the responsible authority is the Ministry of Health, P.O. Box 9083, Dar es Salaam. The address and designations of the competent authority are included in the last issue of the WHO Secretariat list.

The receipt of a Certificate of a Pharmaceutical Product is a requirement for registration of drugs and the requirement is indicated in application forms for notification.

The Central Medical Stores tender document calls for the submission of GMP certificate and Licensing Status Certificate at the time of calling for tenders. Bidders with GMP and Free Sale certificates are given preference by the Tender Technical Committee. Products from manufacturers are sometimes accompanied by batch certificates, while products from agents and wholesalers arrive without batch certificates.

Contact with competent authorities in the exporting countries is made directly.

Observations:

- The WHO Certification Scheme is not operational.
- There is no drug registration.
- There is no control over drugs imported by the private sector.
- In the public sector GMP and Free Sale certificates are requested.
- A Batch certificate is not required for imported drugs.
- Sometimes, dubious certificates are submitted together with bids which the CMS is unable to reject due to lack of the WHO list of competent authorities.
- The quality assurance system is not adequate.

Tunisia

1. Population

8.5 million in 1992.

2. Pharmaceutical import and consumption

Total imports of pharmaceuticals in 1992 were estimated to be US\$ 112.79 million. Main exporting countries were: Bulgaria 1.5%, France 74%, Germany 1.5%, Italy 4%, Jordan 35%.

Drug consumption in 1992 in the public and private sector amounted to US\$ 29 and US\$ 131 million respectively. The total public sector drug budget for 1992 was US\$ 27 million.

3. Drug policy and essential drugs list

The 8th Final Report of Health Plan of September 1991 reflects the national drug policy of the country. The policy covers all aspects relating to drug regulatory control, drug registration, drug procurement and quality assurance. There is a plan, developed in April 1993, for the implementation of the policy.

The National Essential Drugs List of Tunisia was formulated on 24 September 1991 and is used for procurement in the public sector. The list comprises 304 products.

4. Infrastructure and functioning

4.1 Drug regulation and registration

Law No. 85-91 of 22 November 1985 is used for the regulation of human drugs in Tunisia. Guidelines for registration of drugs were developed on 15 December 1990 but actual registration started in 1992. Decree No. 90.1400 of 3 September 1990 defines among other things, regulation of GMP and quality control, storage, labelling, nomenclature and promotion.

The Department of Pharmacy and Medicines is responsible for the development of legislation. The Division of Registration coordinates drug registration. All drugs imported into the country are subject to registration.

4.2 Public and private procurement

Pharmacie Centrale de Tunisie is the sole drug importing agency in the country. Procurement is done by means of open and restricted tender as well as through negotiation. In 1992, 450 products were purchased from manufacturers in France.

4.3 Quality control of drugs

Drugs are tested by the National Drug Quality Control Laboratory of Tunisia before authorization for marketing, to ensure conformity to open tender and in post-marketing surveillance. In 1992, 741 samples were sent for testing and 78% passed the tests. Samples are sent for testing after receipt and after payment and following complaints.

4.4 Inspection

The Division of Pharmacy Inspection under the Pharmacy and Medicines Department is responsible for the inspection of drug establishments.

5. **Operation of the WHO Certification Scheme**

Tunisia accepted the Scheme on 8 February 1978 and the responsible authority is the Direction de la Pharmacie des Laboratoires et des Médicaments de la Santé, Place Bab Saadoun, Tunisia. A copy of the marketing authorization from the country of origin, attestation of sale of the product in the country of origin and batch certificate are requested for registration and import of drugs into the country. Attestation of import authorization is sent to Customs officers and to the procurement agency to notify them on products registered in the country. A circular is made twice a week and official nomenclature of products authorized for importation is given to all pharmacists. Contact with competent authorities of exporting countries is made directly or through intermediaries.

Observations:

- A Certificate of a Pharmaceutical Product is not a prerequisite for drug registration.
- All drugs imported into the country are registered.
- Marketing authorization, attestation of sale of the product in the country of origin and batch certificate are required for registration and for importation of drugs.
- Quality assurance of marketed drugs is effective.

Yemen

1. **Population**

14 million in 1992.

2. **Pharmaceutical import and consumption**

Total imports of pharmaceuticals in 1992 were US\$ 68.64 million. Main suppliers were: Egypt 10%, Germany 9%, Jordan 12%, South Korea 4%, Switzerland 9%, UK 10%; and Belgium, Denmark and France 5% each; others 31%.

Drug consumption in 1992 in the public and private sector amounted to US\$ 18.81 and US\$ 48.651 million respectively. Consumption of the NGOs was US\$ 0.178 million. The public sector drug budget for 1992 was estimated at US\$ 20.81 million.

3. **Drug policy and essential drugs list**

There is a written and approved national drug policy called "National Drug Policy of the Republic of Yemen" developed in 1993. The policy covers aspects related to regulatory control, drug registration, drug procurement, and quality assurance. There is also a plan entitled "The National Pharmaceutical Programme Plan of Operation, 1993-1996", developed in February 1993 and implementation adheres to the plan.

The Yemen Essential Drugs List formulated in 1991 comprises 284 products and is being used in the procurement of drugs for the public sector.

4. **Infrastructure and functioning**

4.1 Regulation and registration

The Supreme Board of Drugs and Medical Appliances (SBDMA) under the Ministry of Health is the authority responsible for drug regulation and registration in Yemen. The drug legislation comprises various ministerial resolutions, laws and government decrees. A consolidated legislation has not been enacted. Ministerial resolution No 143, 1975 deals with drug registration. The percentage of products on the market which are currently registered is 70%. Guidelines are available for applying for registration. Drugs imported by the private and public sector are subject to registration. There is also an illicit market.

4.2 Public and private procurement

The General Directorate and Medical Supplies under the Deputy Minister of Health procures drugs for the public sector. Procurement methods used are: open and restricted tender, negotiated procurement, direct purchase from manufacturers and wholesalers. Drugs are also obtained in the form of donations. In 1992, about 201 products were bought from former

Czechoslovakia, Germany, India, Japan, the Netherlands and UK. Also, about five products were purchased from wholesalers in the country.

In the private sector, there are 35 importers operating. Procurement is done mainly through direct purchase from manufacturers/agents. In 1992, about 1140 products were procured from Belgium, Denmark, Egypt, France, Germany, Jordan, South Korea, Switzerland, UK and others.

4.3 Quality control of drugs

Quality control of drugs is done locally by the Drug Quality Control Laboratory in Sanaa, as well as abroad by the Pharmaceutical Laboratory of Cyprus and the Drug Quality Control Laboratory of Tunisia. There are no established criteria for regular quality control sampling from the local markets.

Out of 297 samples submitted in 1992 for quality control testing, 175 were analyzed by the Drug Quality Control Laboratory, of which three failed to pass the tests. Samples are collected and sent for testing after receipt and after payment, and following complaints.

There is no system for health personnel to report complaints regarding drug quality. No information is sent to the competent authority of the exporting country on drugs that have failed tests.

4.4 Inspection

The Inspection and Control Section of the Pharmacy Department is responsible for the inspection of drug establishments.

5. **Operation of the WHO Certification Scheme**

Yemen accepted the Scheme on 9 June 1982 and the competent authority is the Supreme Board of Drugs and Medical Appliances of the Ministry of Health.

The receipt of a Certificate of a Pharmaceutical Product is not a prerequisite for drug registration. There are no regulations or guidelines laid down in the drug legislation. But a Certificate of GMP compliance and a Free Sale certificate are requested for registration and they are included in guidelines for registration issued by SBDMA. Although a Certificate of a Pharmaceutical Product was not provided by the applicants, a Certificate for GMP compliance and a certificate of Free Sales were always provided (100%). Guidelines on how to obtain certificates are issued to importers, agents and wholesalers. Customs officers, public and private importers and others are informed about registered drugs by circular. Contacts with competent authorities in the exporting countries are made through intermediaries.

In the public sector Free Sale certificates and Batch Certificates are requested from manufacturers at the time of calling for tenders.

Observations:

- A Certificate of a Pharmaceutical Product is not requested as recommended by WHO.
- Free Sale certificates and GMP certificates are requested for drug registration .
- In the public sector, Free Sale and Batch Certificates are requested.
- A majority of the certificates are issued by health officials from the city, state and provincial governments and not by the competent authorities in the exporting countries.
- Local drug importers and distributors have a vague understanding of the WHO Certification Scheme.
- No quality control test is performed on imported drugs unless a question arises regarding potency, label, etc.

B. EXPORTING COUNTRIES

France

1. General data on the pharmaceutical sector

Currently, there are 342 licensed pharmaceutical manufacturers in France. This figure does not include approximately 35 enterprises operating as contract manufacturers without marketing authorization, nor does it include 12 manufacturing units which operate attached to pharmacies. The total number of plants (separate inspection sites) in the country is 766 (43% in the region of Paris alone).

There are 231 pharmaceutical wholesalers in the country, but only three major groups of approximately 70 establishments each make up 80% of the market. These three groups are also involved in export activities. However only 26 of the pharmaceutical wholesalers carry out export activities exclusively. La Pharmacie Centrale des Hôpitaux (Central Pharmacy for Hospitals) exports pharmaceuticals, often without registered products.* Charitable associations also export drugs often in the form of a donation.

2. Infrastructure and functioning

2.1 Infrastructure

Law No. 93-5 of 4 January 1993, recognizes a central agency, Agence du Médicament, for the regulation of medicines in France. Its power is defined in Article 567.2. Decree No. 93-295 of March 1993 stipulates the status of the agency.

The agency is divided into four parts:

- la Direction de l'Administration Générale (General Administration)
- la Direction de l'Evaluation du Médicament (Drug Evaluation)
- la Direction des Laboratoires et des Contrôles (Quality Control Laboratories)
- la Direction des Etudes et de l'Information Pharmaco-économiques (Studies and Pharmaco-economic information).

The Service de l'Inspection et des Etablissements pharmaceutiques (Department of Inspection and Pharmaceutical Establishments) comes directly under the Direction Générale. The Quality Control Laboratories are located in Lyon, Montpellier and Paris.

* According to the information received after the assessment, "This activity has stopped since 1994 and La Pharmacie Centrale is not allowed to export".

2.2 Function

2.2.1 *Drug regulation*

The export of medicines is regulated by Article L 603 of the revised Law No. 92-1279, of 8 December 1992. The Law stipulates that drug manufacturing companies which intend to export are required by the Ministry of Health to have a GMP certificate in accordance with Article L.600. However, medicines destined for export are not required to be controlled or subjected to evaluation.

Article L.596-1, stipulates that not-for-profit organizations of a humanitarian nature are allowed to establish their own pharmaceutical establishments and to distribute medicines which conform to Article L.600, to similar organizations in France or to countries in the EEC. In Article 596-2, the Ministry of Health of France can authorize the collection of unused drugs for the benefit of the poor.

The percentage of pharmaceutical products on the market currently registered is less than 100%. This is because some of the products are used for the treatment of tropical diseases and parasites which do not exist in France, and hence are not registered. Since 1978, about 3500 products have been registered exclusively for export in accordance with Article L.603.*

2.2.2 *Quality control*

The Quality Control Laboratories are responsible for the testing of the quality of medicines. Quality control testing is not undertaken during the registration of drugs for economic reasons, rather, the testing is performed through a post marketing surveillance which takes place during the first year that the product goes on the market. In 1992, 493 products were tested, especially those used in emergency conditions, as well as new drugs.

In 1992, 493 batches (three samples each) were sent for quality control testing and 80% passed the tests. Quality control tests were not performed on exported products.**

2.2.3 *Inspection*

Inspection is done both at central and regional level. There are no specialized production inspectors at the moment. The frequency of inspection of manufacturers is once a year in conformity with Article R5056 of the Code of Health. The majority of the inspection reports are submitted to the Regional Health Department with copies to the Chief of Inspection. Inspectors have no special instruction or control programme related to products for export.

* According to the information received after the assessment...."New products are not registered as of June 1994 and the new regulation of Law No 92 1279 of December 1992, in addition to the previous authorizations will not be valid as of June 1995. Nowadays, there is no longer any registering of Article L 603. A declaration of exportation to be completed by the producer explaining the reason why his product does not have a Free Sale Certificate (AMM) is reviewed by the Agence and transmitted to the health authorities in the importing country".

** Also..."In 1993, 565 products used in emergency conditions as well as new drugs were tested and 96% passed the tests".

There is a formal side-effect reporting system in conformity with Decree No. 84-402 of 24 May 1984. The Agence du Médicament through its Direction de l'Évaluation du Médicament (Drug Evaluation Agency) coordinates the activities of 30 regional centres. Pharmaceutical companies are required to report all undesirable effects related to the drugs they produce. There is also a formal system for the recall of medicines.

2.3 Operation of the WHO Certification Scheme

France accepted the Scheme in 1975 and the competent authority is the Agence du Médicament. Certificates issued by the authority include*:

- Attestation of Free Sale (AMM) according to L.601.
- Certificate of Free Sale for product according L.603.
- Certificate for legal existence of an establishment.
- Certificate of origin testifying that the establishment is the actual manufacturer of the product.
- Certificate of Good Manufacturing Practice.
- Certificate of a Pharmaceutical Product (WHO 1975 type).

The Certificates are written in French, English and French, and Spanish. They do not contain the WHO emblem and do not mention that they are in accordance with the WHO recommendation. The Certificates include their date of issue, an official seal, and a seal on each page in cases where certificates are more than one page. The paper used has a special mark to prevent counterfeiting.

According to Article L. 603, a special responsibility is given to customs authorities to control the export of pharmaceutical products if the export is forbidden. However, the issue of a Certificate of a Pharmaceutical Product is not a condition for obtaining an export license.** Also, exporters are not interested to obtain such a certificate because importing countries do not ask for it. All certificates are issued by the Agence du Médicament, which has under its authority departments for evaluation and inspection.

* According to the information received after the assessment, ..."in accordance with the Law 92 179 of December 1992 certificates issued after June 1994 by the authority will include: Certificate of Free Sale (AMM) according to L 601 (Certificate de libre vente); Export Certificate according to L 603 (Déclaration d'exportation); Certificate for legal existence of the establishment (Arrêté d'ouverture d'établissement); Certificate of Good Manufacturing Practice (délivré par l'Inspection, non conforme OMS), not in accordance with WHO; Certificate of a Pharmaceutical Product (WHO type 1975), délivrance non systématique.

** Also..."Export license no longer exists."

Manufacturers which use contract manufacturers declare their commitment during registration that they respect the requirements for registration and they audit their contract manufacturers.

In 1992, 20% of the requests made for a Certificate of a Pharmaceutical Product were rejected by the authority. During the same year, about 3000 certificates were issued for products not registered for use in the country. Requests for product certificates are sometimes rejected on the ground that documents are incomplete, the applicant has no manufacturing authorization, and does not conform to health laws.

There is a post marketing surveillance system for the quality control of pharmaceutical products approved under Article L.601 for local consumption but not for export products. In 1992, 19.3% of the products for which product certificates had been issued were rejected upon testing samples in the course of a post marketing surveillance.

India

1. Drug legislation

The Drug and Cosmetics Act of 1940, the Drug and Cosmetics Rules of 1945, and the subsequent amendments are used for the control of pharmaceuticals. Under these regulations, the regulation of manufacture, sale and distribution of drugs is primarily the concern of the State authorities.

2. Drug control administration

2.1 Central level

The central authorities are responsible for developing standards for drugs; quality control of imported drugs; coordination of state activities; giving expert advice for uniformity in enforcement; concurrent control over the manufacture of vaccines/sera, I/V fluids and blood products.

2.2 Zones

The country is divided into four zones. They are:

WEST ZONE: States of Maharashtra, Gujarat, Madhya Pradesh, Goa and the Union Territory of Daman and Diu;

SOUTH ZONE: States of Tamil Nadu, Andhra Pradesh, Kerala, Karnataka and the Union Territory of Pondicherry;

NORTH ZONE: States of Uttar Pradesh, Rajasthan, Himachal Pradesh, Delhi, Punjab, Haryana and Jammu and Kashmir;

EAST ZONE: States of West Bengal, Orissa, Arunachal Pradesh, Bihar, Assam, Mizoram, Nagaland, Sikkim, Meghalaya, Tripura, Lakshadweep and Andaman and Nicobar Islands.

Besides, one sub-zonal office under each of the above zones has been created, namely at Ahmedabad in West Zone, at Hyderabad in South Zone, at Lucknow in North Zone and at Patna in East Zone. The sub-zonal offices at Ahmedabad, Hyderabad, Lucknow and Patna look after matters pertaining to the States of Gujarat, Andhra Pradesh, Uttar Pradesh and Bihar respectively.

Central government offices are situated in four main ports, namely Cochin, Bombay, Calcutta and Madras, in these four zones. The liaison officer in each zonal office is Deputy Drug Controller.

2.3 State authorities

Responsibilities for drug control are vested with the Food and Drug Administration Commissioner or Drugs Control Department. They are responsible for the regulation of the manufacture, sale and distribution of drugs.

2.4 Inspection

Joint inspections are carried out in the licensing of new manufacturing premises, and the issuance of a Certificate of a Pharmaceutical Product. Licences and certificates are issued by the State authorities.

2.5 Testing laboratories

The Central Drug Control Laboratory in Calcutta is responsible for the control of the quality of imported drugs and supply of reference standards to government testing laboratories. The Central Indian Pharmacopoeia Laboratories in Ghaziabad in Uttar Pradesh validate pharmacopoeial monographs; act as government analyst; and test condoms.

The Central Research Institutes in Jasauli and Himachal Pradesh are responsible for testing of saline preparations and vaccines.

The State testing laboratories are accredited by the state drug control department.

2.6 Board/Committee

- **Drugs Technical Advisory Board:** The Board is appointed by the Central Government to advise the Central and State Governments on technical matters arising out of the administration of the drug legislation.
- **Drug Consultative Committee:** The Drug Consultative Committee constituted by the Central Government advises the Central and State Governments, and the Drugs Technical Advisory Board on any matter tending to secure uniformity throughout India in administration of drug legislation.

3. **Pharmaceutical manufacturing**

There are 200 large (including multinationals) and 8000 small (including contract manufacturers) manufacturers.

All manufacturing premises must comply with the GMP requirements specified under scheduled medicines. Of the above-mentioned manufacturers, only 152 have GMP certificates.

4. Findings

4.1 Use of the WHO Certification Scheme

The old format of the WHO Certification Scheme is still being used. Certificates are issued to those who export their products, on request. Certificates are issued after satisfactory joint inspection of Central and State inspectors with a standard checklist. Amendments to existing legislation are being considered, e.g. issue of a certificate for each individual product.

All manufacturers have been issued with GMP certificates. However, variations in standards were observed. Increased requests for the issue of a Certificate of a Pharmaceutical Product by importing countries have led to the upgrading of existing facilities of manufacturers dealing substantially in export trade.

4.2 Exports not certified under the WHO Certification Scheme

Pharmaceutical products not certified under the WHO Certification Scheme are being exported to centres in Belgium, Germany and Hong Kong. In case of contract manufacturing, the details of the contractor appear on the labels of products manufactured by a contracted manufacturer.

C. INTERNATIONAL SUPPLY AGENCIES

International Dispensary Association (IDA)

1. Economic data

IDA is a large-scale supplier of essential drugs and related medical supplies to the public sector in developing countries. The total value of pharmaceuticals supplied in 1992 amounted to US\$ 80 million. Over 4000 orders are filled every year. The main recipient countries number 20, but the total number of customers is about 100. The value of products exported in 1992 was: African countries 70%; Central American countries 10%; and Middle Eastern countries 8%.

The flow of pharmaceuticals is that products purchased are delivered by the manufacturers to the IDA warehouse in Amsterdam, where they are put in stock. Here the goods are assembled according to orders and shipped to their destinations. The average value of the stock in the warehouse is about US\$ 10 million.

2. Functioning of procurement and quality assurance mechanisms

2.1 Procurement

Essential drugs are purchased by IDA, preferably from generic drug manufacturers who produce the raw materials and the finished dosage forms, and from contract manufacturers. It has approximately 120 approved suppliers. In practice, the majority of purchases is obtained from 60 suppliers. The number of products supplied by IDA is about 300. The main source countries are Austria, Belgium, China, Denmark, France, Germany, India, Italy, Mexico, Portugal, South Korea and UK. IDA also has a manufacturing plant in Malta, PHARMAMED, which manufactures tablets and dry syrups. The plant supplies some 20% of IDA's turnover. Products of PHARMAMED are not registered in the Netherlands.

The actual suppliers are selected through a supplier pre-qualification process. There is a group of suppliers who have provided IDA with pharmaceuticals of an appropriate quality for a long time and who are considered reliable. New suppliers are asked to produce documentary evidence that they are licensed by the local drug regulatory authority and furnish a GMP certificate delivered by this authority. On review of these documents, a decision is made whether an on-site audit is necessary. In 1993, some 30 such audits were made according to a "Manufacturer Audit Check-List" established internally by IDA. During the audit, the stability data on products offered by the manufacturer are also reviewed. The costs of the audit are borne by IDA. On the basis of the results of the audit, a decision is made whether to approve the new supplier.

Qualification of manufacturers is followed by qualification of individual products offered by them. This process includes the following: the supplier is asked to provide samples of his products. These samples are analyzed at the IDA laboratory in Amsterdam, or if more complex testing is necessary, sent to an external laboratory, usually the laboratory of Dutch pharmacists. Specifications are next established for the product, usually the British Pharmacopoeia (BP) or USP are used.

For the BP specifications, the dissolution test is frequently added. If a product is not included in these pharmacopoeias, the manufacturer's specification is used, but after review and approval by the IDA laboratory. For some products, the IDA laboratory has evolved its own quality specifications, which include bioequivalence testing. In 1992, some 300 new and revised product specifications were approved. All products bear the name of the manufacturer on the label.

2.2 Quality assurance

IDA's operation involved the procurement of approximately 3000 batches per year, in all cases visual inspection of the product, including labelling, is done and a retention sample is taken and stored; some 655 batches are analyzed in the IDA laboratory (25%), mostly critical parameters only. About five batches per year are rejected after laboratory analysis. In addition, the laboratory performs another 400 analyses: approval samples from new manufacturers and testing of products provided by new sources. All together approximately 700 samples are analyzed per year at the IDA laboratory.

All batch certificates are reviewed after the goods are received at the warehouse. They are checked to see if they bear the signature of a responsible analyst. After the review, all certificates are kept in files.

Product certificates are requested from manufacturers at the stage of product approval. They are received in some 80% of the cases. The certificates are considered as valid for three to five years from the date of issue, then a renewal of the certificate is requested. In 1992, some 150 product certificates were received. At present, all the data are being placed in a computerized system to facilitate the control over renewals.

A system for dealing with quality complaints received from customers exists. It is laid down as a written procedure with a recall system (all products and batch numbers shipped to each customer are kept as computerized records). There were 25 complaints received in 1992, and in three cases, a recall was made.

When requested, copies of product certificates are attached to consignments of distributed products. But such requests are very rare. When requested, copies of GMP certificates and batch certificates are also attached to consignments.

Observations:

- An audit of the manufacturers to check GMP compliance is an expensive element of the control system to be used repeatedly.
- The use of a batch certificate as recommended by WHO should be increased.
- Attempts should be made to obtain a Certificate of a Pharmaceutical Product for all products purchased by IDA.
- Analytical testing of products received at the Amsterdam warehouse should be done on a much larger percentage of batches using the full range of tests included in product specifications.
- IDA also plays the role of an export organization. All products supplied by IDA, therefore, should be accompanied by batch certificates.

United Nations Children's Fund (UNICEF)

1. General Information

UNICEF has a supply branch, located in Denmark, which furnishes developing countries with various commodities necessary for health and educational programmes. The value of essential drugs and vaccines that were supplied in 1992 was US\$ 123 million (essential drugs: US\$ 61 million; and vaccines: US\$ 62 million). In addition, essential drugs valued at US\$ 20 million were supplied to Romania under a World Bank financed project.

The main countries of destination of essential drugs were Bangladesh, China, Ethiopia, India, Iran, Sudan and the countries of former Yugoslavia. The supply activities are on a non-profit basis, hence prices are as low as possible. In 1992, pharmaceutical products were purchased from 81 manufacturers located in 31 countries. Main suppliers were manufacturers located in Austria, Belgium, Canada, France, Germany, Italy, Japan, Switzerland, UK and USA.

2. Functioning of procurement and quality assurance mechanism

Procurement is effected through open and restricted tender as well as by using a group of permanent suppliers.

The quality of purchased products is assured by operating a control system which includes the following control stages:

- i) Qualification of manufacturers (suppliers):
 - manufacturers are required to submit documents describing the manufacturing premises and facilities, and information on products that are manufactured and on the size of production;
 - a copy of the manufacturing license issued by the national authorities;
 - a copy of the last inspection report.

The documents are examined at the Health and Nutrition Branch with the assistance of experts from the National Board of Health of Denmark. A decision is then made to accept or reject the supplier. A decision to accept the supplier is sometimes conditional. In that case, the manufacturer is subjected to an audit by a team composed of inspectors from the National Board of Health of Denmark. The costs of the audit are paid by the manufacturer. If the results of the audit are positive, a final decision to accept the manufacturer is made. Such decision is valid usually for two years and can be reviewed. In some cases, the acceptance of a manufacturer may be limited to some specific pharmaceutical forms (e.g. tablets) only.

- i) Qualification of specific products:
- for each product, a product certificate or a Free Sale certificate is required, attesting that the product is authorized to be placed on the market in the country where it is manufactured;
 - a quality specification for the product is then established, usually that of the British Pharmacopoeia or the United States Pharmacopoeia;
 - a decision is also made concerning the requirements on the container and on labelling of the product; special attention is paid to the properties of the container of the product so that it will be compatible with conditions of storage in subtropical countries (high temperature and humidity).

The quality of purchased products is controlled by:

- a) sampling all batches on arrival for visual review (type of container, appropriate labelling, appearance of the product);
- b) analysis of selected batches.

In 1992, samples taken from 500 batches were sent for analysis. The following criteria are considered to decide whether a batch is to be subjected to analysis:

- price of the product (more expensive products are analyzed more frequently);
- the size of the batch;
- previous experience with the manufacturer;
- properties of the product (less stable products are analyzed more frequently).

Analyses are carried out by collaborating laboratories: the Pharmaceutical Control Laboratory of the National Board of Health of Denmark; the National Control Laboratory in Uppsala; the Analytical Laboratory of the German Pharmaceutical Society in Eshborn, Germany; and the Stein Laboratory in Denmark. The cost of analysis is in the range of US\$ 500 to US\$ 1500 per batch (sample).

The above-mentioned procedure covers approximately 80% of drugs that are supplied. Other drugs and all vaccines, due to their perishable nature, are shipped directly by the manufacturers to the final destination.

3. Use of quality certificates, including WHO Certification Scheme mechanisms

Product certificates are requested in the course of qualification of manufacturers and their products. In some cases, they are not considered as fully reliable. This occurs especially when it is not clear whether the national GMP requirements conform to the WHO GMP requirements, and if there are doubts whether the regulatory authority in the country of manufacture is able to perform adequate inspection of the manufacturer and evaluate the results. Two examples of unreliable product certificates, issued in Egypt, were quoted to support this opinion: one issued in

English but lacking any date, another issued in Arabic on a company letterhead and validated only with a stamp of the Ministry of Health.

In 1992, about 200 product certificates were received from 70 countries. Batch analytical certificates are required from all suppliers for all batches of purchased products. They are reviewed when the goods are accepted. Analytical certificates are usually not linked to product certificates and therefore do not conform to the Certification Scheme.

When drugs are forwarded to importing countries, invoices are not accompanied by quality control certificates. Copies of batch certificates are sometimes sent to the recipients, but on a specific request by the importing countries.

Observations:

- The use of experienced pharmaceutical inspectors to audit GMP compliance of prospective suppliers is an expensive element of the control system and cannot be used repeatedly.
- Wider use of the WHO Certification Scheme should be made.
- Analytical testing of products received at the Copenhagen warehouse should be done on a larger percentage of batches, possibly by using cheaper testing facilities.
- The possibility exists to create a small analytical laboratory, located at the warehouse, to perform basic tests on all products received.