

In the name of God, the Compassionate, the Merciful

Republic of Sudan

Federal Ministry of Health

Directorate General of Pharmacy

National Drug Policy

(2005 – 2009)

2005

Preface

In spite of the recognition of the basic role played by medicines in the protection and maintenance of human health and treatment of human ailments yet national health policies and plans during the first decade after independence did not include drug policies or plans for providing the needs of those health policies and plans with assured efficacy, safety and quality medicinal products; which have greatly increased in their numbers and sources and without being subjected to any significantly effective control.

The decade of the seventies saw an increase in the many drug problems from which most developing countries suffered; e.g. marketing of substandard medicines; misleading drug promotion; inaccurate assessment of drug needs; irrational prescribing, irrational dispensing and use of medicines; improper pricing practices; insignificant local drug production; acute shortage in foreign exchange needed to import medicines and last but not least poor drug regulation and control. Sudan has suffered from all these problems during that decade.

In 1980 the acute shortage in foreign exchange caused increasing shortages in essential drugs which have consequently resulted in inability of the Ministry of Health (MOH) to implement the national health plan and was thus unable to provide reasonable health and medical services to the population at all health care levels. The Ministry was by then convinced of the need to formulate a national drug policy based on the concept of essential drugs with the objective of making best use of the limited available resources to provide the maximum possible needs of the population of effective and safe essential medicines of assured quality and to promote their rational and appropriate, prescribing, dispensing and use.

On 7 February 1981 the Minister of Health issued Ministerial Order No. (1) / 1981 by which he constituted a national committee of 29 members in which all ministries concerned were represented as well as Bank of Sudan, Faculties of Medicine and Pharmacy University of Khartoum, Medical Doctors' Syndicate, Pharmacists' Syndicate, Association of Importers of Medicines and the Ministry of Health Departments. The Committee held 15 meetings in which it discussed the NDP draft and other working papers and reference materials prepared by the Ministry and submitted to the Minister of Health a finalized draft of the NDP document. The Committee also adopted a draft National List of Essential Drugs (NLED) which was selected by a sub-committee that included 11 senior specialists in various branches of medicine and pharmacy. The Minister of Health eventually endorsed the NDP

document on 26 July 1981 and directed the Committee to follow up its implementation.

The development and adoption of that comprehensive NDP with its 13 components, and the simultaneous selection of a NLED which was immediately used to revise the list of medicinal products for the public sector supplied by MOH Central Medical Stores (CMS), was highly praised by the World Health Organization (WHO) and was considered a great achievement. WHO in the same year 1981 established its Action Programme on Essential Drugs (DAP). So Sudan was one of the first developing countries, (and probably the first), to develop and implement a comprehensive NDP. This prompted WHO to extend its assistance to the Sudan in the implementation of its NDP, by increasing WHO biennial Regular Budget allocations for GOS/WHO Pharmaceutical Programmes and by successfully acquiring bilateral aid and extra budgetary resources from donors for the physical rehabilitation of CMS buildings and facilities, and capacity building of its human resources; and for the implementation of Sudan Essential Drugs Programme. It is evident that Sudan pioneer NDP has played a great role in promoting the concept of essential drugs, and in improving the national drug supply system, as well promoting rational prescribing, dispensing and use of medicines, and improvement of education and training of health workers, and strengthening drug information, drug research, and capacity building of human resources involved in all these fields.

In 1994 the Federal MOH planned to revise and update the NDP in light of new developments, and in order to be consistent with the National Health Strategy incorporated in the Comprehensive National Strategy for the decade 1992-2001. About 300 doctors and pharmacists, and representatives of the ministries concerned and of all drug related public and private sectors and WHO experts participated in specialized working groups and in the workshop that studied, discussed and adopted the revised NDP. The Federal Minister of Health eventually officially endorsed the NDP by Ministerial Order No. (3)/1997 dated First May 1997.

It has been planned to revise and update the 1997 NDP during the year 2002, but in that year the government directed all ministries to develop a Quarter Century National Strategy. So the revision of the NDP was postponed till the Quarter Century National Pharmaceutical Strategy (QCNPS) is developed and adopted. The QCNPS was eventually developed by a 55-member national multidisciplinary Supreme Committee of representatives of public and private drug related sectors. The National Supreme Committee submitted the drafted Quarter Century National Pharmaceutical Strategy Document for the years 2005-2009 to the Federal Minister of Health on 31 May 2005.

In view of the above, and the endeavours of the Federal MOH to implement the QCNPS, and being conscious of the role that can be played by the NDP as a comprehensive framework and guide for action necessary for the development, promotion and implementation of all pharmaceutical activities; the Federal Minister of Health issued Ministerial Order No. (10)/2005 dated 16 June 2005 by which he constituted a Supreme NDP Committee of 34 members representing all the bodies concerned in the public and private sectors to undertake the assignment of formulating a NDP for the first five years 2005-2009 of the QCNPS. The Supreme Committee held a series of meetings and fulfilled its assignment and submitted the proposed NDP document to the Federal Minister of Health.

National Drug Policy (NDP) 2005-2009

Adoption of the concept of essential medicines

The NDP shall adopt the concept of essential medicines and its principles in selecting essential medicines in accordance with prescribed clinical guidelines in order to determine the real needs of the population of medicinal products which are safe, effective, stable and of reasonable cost; and which the State will endeavour to make them available, assure their quality and make them easily accessible to those who need them.

Objectives of the NDP

The objectives of the NDP are to ensure the following:-

- (a) To make available the needs of the population of essential medicines of assured safety, efficacy and quality in adequate amounts at the least possible cost to the individual, the community and the state.
- (b) To promote rational use of essential medicines.
- (c) To provide up to date pharmaceutical services in accordance with the concept of pharmaceutical care, and to promote the role of the pharmacist in the maintenance and restoration of health and his contribution to the fight against diseases.

Components of the NDP

The NDP shall have the following main components:-

1. Organization and drug and pharmacy regulation and control

1. National pharmacy and medicines regulatory authority

The NDP seeks to promote the authority of the national pharmacy and medicines control administration which is the Federal Board of Pharmacy and Poisons (FBPP) which is the national drug regulatory authority that has the jurisdiction and powers. Action should be taken to strengthen FBPP administrative, organizational,

and technical and control capabilities. Effective cooperation between the Federal Board and state health and veterinary authorities should be maintained in order to ensure effective management and control of manufacture, import, distribution and pricing of medicines, assurance of their safety, efficacy and quality, monitoring their adverse reactions, availing accurate drug information and restricting improper promotional activities.

Hence action should be taken to achieve the following:-

1.1 Federal Board of Pharmacy and Poisons

To enable the FBPP to carry out its duties properly the responsible authorities concerned should take action to achieve the following:-

1. To maintain the practical and legal autonomy of the FBPP as a national administration for pharmacy and medicines control and as the only federal authority responsible for the organization, regulation and control of medicines at the national level, and for the selection of medicines and for specifying their standards and specifications, and for regulating their storage, distribution and dispensing.
2. To legally enable the Directorate General of Pharmacy Federal Ministry of Health to act as the General Secretariat of the FBPP and for the Director General of Pharmacy to be the Board Secretary General by virtue of his post.
3. The FBPP should care for its independence and hold to its powers and should not allow any person, local or foreign body to bypass the Board or its Secretariat on any matter which is within the jurisdiction of the Board, its Secretariat or its authorized committees.
4. The Government should provide the Directorate General of Pharmacy in the Federal Ministry of Health with the human and material resources necessary for its speedy and efficient performance as the General Secretariat of the FBPP.
5. When constituting the FBPP the number of its members should be reasonable to enable the Board to convene timely meetings and take its decisions with reasonable speed.
6. The FBPP should be represented in the national committee responsible for achieving acceptance of Sudan membership in the World Trade Organization in order to protect the country from the negative impacts of WTO agreements on drug trade and industry, trade in pharmaceutical and medicinal services, intellectual property rights and other matters that can harm the health of the population and national interests; and to undertake

national, regional and international action in collaboration with other developing countries to combat such harm.

1.2 Drug information, pharmacovigilance and statistics

The Quarter Century National Pharmaceutical Strategy indicated the importance of these activities in drug management, regulation and control. So the Directorate General of Pharmacy should rehabilitate and activate these activities and develop their respective departments; and should start with developing a national drug information system that incorporates drug information and pharmacovigilance that monitors drug adverse reactions, and drug statistics; and should publish a periodical that contains recent scientific and technological advances in pharmacy and medicines. The Drug Information Section should extend its activities to include promotion of rational prescribing and drug use, and public education in rational use of drugs.

1.3 Pharmacy and drug legislation

The official bodies responsible for organization, regulation and control of medicines need basic laws, regulations and orders that indicate requirements and prohibitions and provide these bodies with the jurisdiction and authority that enable them to ensure compliance of all with these legislations and to take appropriate legal action needed for that purpose.

The Pharmacy and Poisons Act (P&P Act) enacted in 2001 contains some lingual errors that need to be corrected. Hence the FBPP should take steps to achieve the following:-

1. To correct all lingual errors especially in the section concerned with the registration of cosmetics and medical devises.
2. To incorporate in the Act provisions that protects the health of humans and the community from any negative impact resulting from the WTO Agreement on intellectual property rights, and to enable the Sudan to make use of the exemption provided for in the TRIPS Agreement for public health consideration.
3. To speed up the updating and issue of regulations, orders, rules, by laws and guidelines as provided for by the P&P Act; especially the new Registration of Pharmaceutical Products Regulations, Poisons Regulations and Schedules, Cosmetics and Medical Devises Regulations, the Poisons Lists Order, Control of Drug Trials on Humans and Animals Regulations and other regulations needed for application of the Act.

4. To include in the Act provisions that recognizes the National Drug Quality Control Laboratory in the Directorate General of Pharmacy as the legal final national reference authority in determining compliance of any medicinal product with the required quality standards and specifications.
5. To provide adequate information to the general public and organizations concerned about all laws, regulations, rules and any legal provisions on medicines, cosmetics and medical devices issued by the State and its constitutional, professional and regulatory bodies; by publication in the official Government Gazette and the internet, and by printing in booklets made accessible to those who want them so that every one knows their content and proceed to comply with their provisions.

2. Quality assurance of medicines

One of the most important functions and major duties of the federal regulatory authority or the state authority concerned is to assure maintenance of the quality of medicines throughout its supply chain of its manufacture or import, its transport, storage, distribution, prescription, dispensing and use. So the State should be responsible for providing the resources and capacity building of the professional, administrative, regulatory and executive personnel needed at the federal and state levels in order to assure the quality of medicines used by the public. So the FBPP should endeavour to implement and/or achieve the following:-

2.1 Standards, specifications and legal requirements

1. Revise and update all legislations, standards, specifications, requirements, codes of practice and guidelines that should legally be complied with in medicinal products and pharmaceutical facilities; taking into consideration assurance of stability of medicines in Sudan extreme climatic conditions.
2. Conduct a scientific study aiming at formulating a national protocol for stability testing of pharmaceutical products based on Sudan climatic conditions, and the effect of transport of medicines by various means to all parts of the country on the stability and quality of medicines.
3. Assure compliance of all medicinal products with prescribed standards and specifications and with all registration and quality

requirements should be in all cases without exemption to any organization or individual, public or private, local or foreign.

2.2 Registration of medicinal products

1. The drafting of the new regulation for the registration of medicinal products should be completed, enacted and applied as soon as possible, then a plan of action should be instituted for the revision of all registered products in accordance with the provisions of the new regulations.

2.3 Laboratory quality control

1. The government should speed up the construction and equipment of the new National Drug Quality Control Laboratory (NDQCL). The Laboratory should be provided with highly qualified and competent human resources and latest laboratory equipment in order to be capable of performing all chemical, physical, microbiological and pharmacological analyses of all drugs, pharmaceutical and medicinal products, cosmetics and medical devices. The NDQCL should be able to seek help from foreign reference laboratories if needed.
2. The NDQCL being the national reference laboratory for quality control of medicines should develop and implement an effective system that include a programme for continuous pre- and post-marketing analysis of all medicines throughout its supply chain and during their entire shelf life.
3. All Regional Health Laboratories should be provided with human and material resources that enable these laboratories to perform basic tests on pharmaceutical dosage forms which will detect deteriorated, counterfeit and substandard medicinal products without need for specialized complicated analytical methods.
4. All faculties of pharmacy should revise and strengthen curricula on quality assurance of medicinal products and on pharmaceutical analysis for quality control purposes.

2.4 Licensing of pharmaceutical establishments

1. Strict compliance with licensing requirement of different pharmaceutical establishments should be enforced; and in particular requirements that assure the sustainability of the quality of medicinal products inside their premises as specified

in regulations, and this should be assured by periodic inspection by drug control inspectorates.

2.5 Pharmaceutical inspection

1. The capacities of pharmaceutical inspectorates at the federal and state levels should be upgraded, and administrative and field control of manufacture, transport, storage, distribution and sale of medicines should be activated. Attention should be paid to combat smuggled and counterfeit medicines.
2. The policy of periodical inspection of foreign drug manufacturing facilities should be continued to ensure their existence and compliance with prescribed current good manufacturing practice.
3. Local pharmaceutical factories should be made to upgrade the standard of their factories and to comply with prescribed current good manufacturing practice by January 2006; and the license of any non compliant factory should not be renewed.

2.6 Pharmaceutical control in the states

1. Federal and state governments should establish and strengthen state drug control departments in order to be capable and effective in ensuring compliance of all concerned with pharmaceutical and drug legislation in every aspect of manufacture, import, storage, distribution, sale and use of medicines and maintenance of its safety, efficacy and quality.

3. Supply of medicines (Drug supply)

The objective of the NDP is to make available and accessible the needs of the population of essential medicines of assured safety, efficacy and quality at affordable prices and ensure equitable distribution.

To realize this objective all those concerned should endeavour to realize compliance with the following:-

1. The public and the private sectors should complement each other in the national drug supply system.
2. Both sectors should comply with prescribed Good Procurement Practice and Good Trade and Distribution Practice.
3. There should be strict compliance with prescribed Good Storage Practice throughout the medicines distribution channels at all levels.

3.1 Drug supply in the public sector

3.1.1 Drug selection

1. There shall be complete commitment to the National List of Essential Medicines by all public sector health establishments and in medicines supplied under bilateral agreements or by donor organizations, and their local production should be encouraged.

3.1.2 Procurement, storage and distribution of medicines

1. Efforts to develop an efficient national drug supply system should continue in order to ensure regular supply of prescribed essential medicines at all times in sufficient quantities to all health facilities and to assure maintenance of their prescribed quality throughout the supply system.
2. The Central Medical Supplies Public Corporation (CMS) and all public sector drug supply establishments should comply with the Financial and Accountancy Procedures Act and Regulations and should continue to procure its requirements of medicines by public tenders from registered manufacturers; and in cases of emergency or urgency where purchase by public tender is not possible competitive bidding among registered medicinal products should be made. Prices of successful bids should be made available immediately after award.
3. The CMS should continue the policy of quantifying the drug requirements of the public sector for at least two years and should ensure the maintenance of strategic two year stocks of strategic medicinal products within the country at all times.
4. A manual on management of drug supply in the public sector should be published. It should detail all drug supply systems, procedures, inventory control and good storage and distribution practice.
5. A study should be made of the feasibility of the unified direct drug supply and delivery system, in which the medicines are directly delivered to the states or public sector hospitals by the drug supply contractors who were successful in CMS tenders.
6. Health facilities in the public sector should continue their commitment to purchase their requirements of medicines from CMS.

7. Special control measures should be made for the import and distribution of medicinal products by NGO's in order to assure need, quality and appropriate use.
8. Immediate action should be taken to provide proper drug storage facilities complying with prescribed requirements of good storage practice in all states, health areas and health facilities in the public and private sectors; and drug control authorities should verify compliance.
9. All drug supply establishments in the public and private sectors should use appropriate packaging, transport and delivery methods that will ensure that every medicine will arrive and be delivered to its destination without any adverse effect on its quality.
10. All drug supply personnel should get appropriate training in drug supply subjects relevant to their academic standards and job requirements.
11. CMS should be directed to purchase locally produced medicines at reasonable prices that serve the ultimate objectives of the national economy.
12. All drug supply establishments in the public sector should comply with all laws and regulations regarding registration, supply and dispensing of medicines.
13. An effective national drug supply system should be developed to be implemented in cases of emergencies and disasters.

3.2 Drug supply in the private sector

1. A national strategic plan for drug imports, coordinated with the national strategic plan for local drug manufacture, should be formulated to achieve the objective of the national pharmaceutical strategy of self sufficiency.
2. Drug establishments in the private sector should be committed to give priority to making available all essential drugs and to making them easily accessible to the population in all parts of Sudan.
3. Drug establishments in the private sector should be committed to practice their drug supply activities within the national drug quality assurance and price control framework.
4. The private sector should be encouraged to make available essential medicines in remote areas, and can be granted drug store licenses in the states that enable them to transport, store and distribute all registered medicinal products to all health facilities in the state.
5. All drug supply establishments in the private sector should comply with all the rules and prescribed requirements of registration,

licensing, import, transport, storage and distribution; and should cooperate with all authorities concerned in combating smuggled and counterfeit medicines.

3.3 Local manufacture of medicines

1. The government should develop and implement the policies and plans for the local manufacture of essential drugs. These policies and plans should include incentives that encourage investment in strategic drug industries, and help to achieve 85% self sufficiency of essential medicines by the year 2010
2. Local drug factories should comply with the prescribed current GMP requirements by the year 2006; and the Central Drug Control Department should conduct special inspections to verify their compliance.
3. Efforts should be made to attract global drug companies to establish drug factories in Sudan or invest in joint ventures.
4. Local drug manufacturers should be encouraged to manufacture and register medicinal products subject to protection under WTO TRIPS Agreement before the 2016 in order to make use of the exemption given to least developed countries to manufacture these medicines without property rights protection restrictions.
5. Local drug production technical personnel should be trained locally and abroad to acquire latest technical expertise to enable them to cope with the continuous development in drug manufacture.
6. Local drug manufacturers should be encouraged to make contracts with global international drug companies to locally produce some of their original essential branded products under license or by contract manufacturing in order to transfer the most developed drug manufacturing technology to Sudan.

3.4 Price control

1. The government should develop and implement a system that ensures that every citizen gets the medicine he needs at a price he can afford, and that provides free drugs to indigents.
2. The government should strongly support the National Health Insurance system and should cover the highest proportion of the population with its umbrella in order to secure to the ensured and their families their needs of medical care and medicines at a nominal cost.
3. The government should contribute to the lowering of cost of medicines by their exemption from different duties and taxes and

by specifying legal margins of profit for the local drug factory, the wholesale drug store and the retail pharmacy.

4. For single source medicines the Registration Committee should negotiate the price according to competitive price information in other countries, accessibility of alternative treatments, and legally justified exemption from protection of intellectual property rights.
5. The General Secretariat of the FBPP should get information about the prices of every medicinal product in different countries of the world, and make the information available to health establishments in the public sector and registered donor organizations to enable them to procure their medicines at the least possible cost.
6. The retail sale price to the consumer which is set by the Registration Committees should be printed on every package of the medicinal product and that retail price should be the same in every part of Sudan.
7. The General Secretariat of the FBPP should publish an annual Medicines Index that lists all registered medicinal products and their retail prices.

3.5 Drug financing

1. The government should increase the funds allocated for combating priority diseases and should enable the poor, indigents and children to get drugs for malaria, Tuberculosis and AIDS free of charge; and for dispensing all drugs in emergency wards in all government hospitals also free of charge.
2. The application of various systems of contribution of citizens to the cost of medicines (cost sharing) should continue, as it allows them to get their drug needs at affordable prices, until they are accommodated under the national insurance umbrella.
3. Competitive reduction of drug prices in the private sector should be encouraged so as to avail medicines at the least prices and assured quality

3.6 Use of generic names of drugs

The implementation of the "Use of Generic Names Regulations" is a step needed for reducing drug prices, and for its contribution to the support of the drug supply system and drug coverage in the public sector. So all those concerned should work towards realizing the following:-

1. To ensure compliance with provisions of the "Use of Generic Names of Drugs Regulations 1997" when calling for drug tenders; or when purchasing, prescribing, and dispensing medicines in the public sector; and that is by using international nonproprietary names (INN) or known generic, pharmacopeias or scientific names.
2. The policy of making available generic multi-source medicinal products by the public and private sectors and local manufacturers should continue and should be encouraged.
3. The ultimate objective of the NDP is to achieve generic prescribing and dispensing in the public and private sectors, and till this objective is achieved the policy allows generic dispensing in the public and private sectors. The dispensing pharmacist in the private pharmacy should inform the purchaser before dispensing the medicine of the available generic alternatives and their prices to choose from; but the replacement of the non generic medicine is not allowed if the prescribing doctor indicated that in writing.

4. Rational use of medicines

Appropriate strategies should be established to improve drug use through pre service and in service training of health workers; and by providing them with accurate scientific drug information; and by forming drug and therapeutic committees in hospitals; and by establishing drug information and poisons centres; and by monitoring adverse drug reactions; and by containment of microbial resistance to antibiotics; and by public education in proper use of drugs; and by control of drug promotion.

4.1 The National List of Essential Medicines (NLEM)

1. The policy of revising the NLEM at least every three years should be maintained, using the same procedure which has been followed before, that ensures participation of the largest possible numbers of health professionals in different specializations in medicine and pharmacy, and participation of representatives of local drug manufacturers and importers provided that they are medical doctors or pharmacists.
2. Levels of use of essential medicines should be specified for different levels of health care.
3. An information data sheet for every essential medicine in the standard format should be prepared.

4. The NLEM, their levels of use and the information data of each essential medicine should be printed in a book which should be widely distributed to all health institutions, organizations and health workers.

4.2 Education

1. Serious and concerted efforts should be made by all health educational institutions, like faculties of medicine and pharmacy, nursing colleges and other health auxiliaries schools, to update their curricula to include the concept of essential medicines and criteria of their selection and newer approaches to rational prescribing and new methodologies in pharmacotherapy teaching, as well as strengthening curricula of clinical pharmacy in faculties of pharmacy and clinical pharmacology in faculties of medicine.
2. Post graduate specialization studies in clinical pharmacy, industrial pharmacy, pharmaceutical analysis, pharmaco-economics and management of pharmaceutical services should be started and/or expanded to cover the needs for these specializations.
3. Sudan Medical Council should complete the updating and the publication of Sudan National Formulary as soon as possible.
4. The Federal Ministry of Health should undertake the editing and publication of the Standard Treatment Guidelines pocket book, and the updating and publication of different auxiliary health workers' manuals.

4.3 Training

1. Planned programmes of specific subject contents and standards for continuing education for all categories of health personnel should be developed and implemented.
2. Fixed programme of training of pre-registration pharmacists should be developed, and the subject content, standard and duration of the training course should be revised.
3. The Federal MOH should continue to organize in service training courses in rational use of drugs for all categories of health personnel.
4. All training courses for health personnel should include the subjects of concept of essential medicines, the NDP and all its components and related issues.

4.4 Dissemination of up to date drug information

1. Accurate up to date drug information should be made regularly and timely available to all health personnel and accessible to them in their health facilities and training institutions.
2. The Federal MOH should revise the situation regarding the functions, terms of reference and affiliation of the National Poisons' Centre.
3. The National Pharmacovigilance Centre should urgently be established to monitor adverse drug reactions and take appropriate action.
4. The centre for containment of microbial resistance to antibiotics should urgently be established in order to develop and implement a national antimicrobial resistance surveillance system. Operational research in this area should be encouraged.
5. Federal and state drug control authorities should watch for and control drug information provided to health personnel by commercially interested sources.

4.5 Rational use of drugs by the public

1. The Directorate General of Pharmacy should develop national and state programmes for public education in rational drug use using various communication channels and public education methods and scientifically effective means. Adequate human, financial and material resources should be provided to ensure sustainability and continuity of public drug education activities at the national and state levels.
2. Official federal and state public information media should contribute effectively to public drug education by allocating time , effort and resources for transmission of programmes on public drug education .

4.6 Drug promotion

1. All persons concerned with drug promotion, whether on the giving or receiving sides, should comply with the Ethical Criteria on Drug Promotion published by WHO.
2. All licensed scientific offices should disseminate accurate, scientific evidence-based drug information from known reliable sources, and should distribute its periodicals and scientific papers to health facilities, medical and pharmaceutical personnel and their training institutions.

3. All drug promotion materials should be accurate, honest, not misleading, unbiased and balanced; indicating positive and negative aspects like side effects and contra indications. All promotional materials should be pre-approved by the Central Drug Control Administration.
4. All persons should comply with the Control of Advertisement of Drug Regulations which prohibit drug advertisement in all public media, and only allow it in scientific periodicals intended for medical personnel.

5. Pharmaceutical services in health institutions

5.1 Provision of pharmacists for health institutions in the public sector

1. Terms of service of pharmacists in the public sector need to be improved to attract sufficient numbers for work in health facilities in the public sector, and even better terms of service should be offered for those who work in public health facilities in the states in order to attract sufficient numbers of pharmacists to work there

5.2 Improvement of pharmaceutical statistics and planning services.

1. The Directorate of Pharmaceutical Statistics and Planning (PSP) in the Directorate General of Pharmacy FMOH as well as PSP Units in Directorates of Pharmacy in the states should be strengthened and provided with human and material resources needed to improve their performance.
2. Coordination among PSP units in the states, hospital units and HQ units is necessary for arriving at simplified and practical format for pharmaceutical and medicinal statistics that can easily be implemented by the staff.

5.3 Improvement of pharmaceutical services in hospitals

The Directorate General of Pharmacy FMOH in collaboration with Health Directorates in the states should take practical steps to achieve the following:-

1. To develop and implement plans for the development of hospital pharmacies in order to improve pharmaceutical services in the hospital.
2. To rehabilitate hospital pharmacies and subject them to effective control.

3. Hospitals drugs and therapeutic committees should be activated in order to undertake their assigned roles.
4. Drug information centres in teaching hospitals should be activated in order to provide medical doctors and pharmacists in the hospital with up to date medical and pharmaceutical information and to organize scientific seminars for hospital staff.
5. To make available medical and pharmaceutical references and periodicals and internet services in hospital libraries and information centres.
6. The practice of clinical pharmacy should be introduced in teaching hospitals.

5.4 Liquidation of people's pharmacies

1. People's pharmacies should be liquidated because need for their establishment no longer exists.

5.5 Scientific research and studies

1. All research institutions interested in drug research should be invited to take part in developing a national plan for drug research based on priorities of drug problems in Sudan. All national research institutions and researchers should adhere to that plan.
2. Operational research in priority drug problems should be encouraged; e.g. in problems of stability of medicinal products in Sudan, antimicrobial resistance surveillance, improper drug use and others.
3. There should be full compliance with prescribed national and international ethical requirements in research involving human subjects, and the provisions of the Pharmacy and Poisons Act should be complied with.
4. Research in local medicinal plants should be encouraged.

6. Medicinal plants

Complementary use of medicinal plants can be achieved by the following:-

1. Making use of the availability and variety of medicinal plants in providing primary health care to a considerable number of citizens.
2. To promote proper practice in treatment by herbal medicines and rational use of safe herbal medicines by:-
 - (a) Enacting and updating the necessary legislation that regulates practitioners of traditional medicine and regulates prescribing and dispensing of these medicines.
 - (b) Develop criteria for proper practice that does not adversely affect human health.
 - (c) Listing and classifying herbal medicines stocked by herbalists and preparation of a guide for those of assured safety and discarding unsafe and harmful herbal medicines.
 - (d) Organizing training sessions for herbalists to upgrade their knowledge in use of safe and effective herbal medicines and get rid of harmful traditional practices.
 - (e) Public education in rational use of safe and effective herbal medicines for treatment of simple ailments in case of unavailability of medical service in health facilities.
3. Encouragement of research and development in herbal medicines.
4. Protection of herbal medicinal plants from extinction by keeping live samples and seeds and establishment of a directory containing all agricultural, geographical and scientific information about the medicinal plant.
5. Growing medicinal plants of proven safety, efficacy, medical usefulness and economic feasibility, and publishing guidelines of good agricultural practice and good collection practice in planting, harvesting, collection and storage, and to encourage investments in this field.

7. Technical and scientific cooperation with other countries and with regional and international organizations.

1. Efforts should be made to achieve maximum possible technical and scientific cooperation with other countries and regional and international organizations in all drug related matters, and to make use of Sudan membership in international and regional organizations (African Arabic, Moslem, IGAD, COMESA, 77 Group of Nations) and others in every activity of benefit to Sudan, and to cooperate in facing adverse impact of globalization and WTO agreements on public health.

2. To expand and strengthen cooperation in the drug and pharmaceutical areas with neighbouring and friendly countries and to promote existing relations in that area.

8. Monitoring and evaluation

1. To ensure good and timely implementation of the NDP a follow up and monitoring mechanisms should be developed that ensures review and amendments if necessary.
2. To establish a unit in the Federal Directorate General of Pharmacy to be responsible for formulation of annual work plans and following up their implementation.

9. Adoption of the National Drug Policy

1. The NDP should be adopted by the relevant political authority, after which the government should allocate funds and resources needed by ministries and public sector institutions for NDP implementation and should provide support for the private sector to implement its part of the NDP.
2. As soon as the NDP is officially adopted a national pharmaceutical master plan should be developed specifying the action that need to be taken for the implementation of each NDP component or issue, who will be responsible for its implementation, and when that will take place, the resources needed and their sources.

**Notice: This is a word for word translation of
the original Arabic Document**