Traditional Medicine (TRM) System in DPRK
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1. Introduction

1.1 TRM development, historical study

Traditional medicine created by the Korean people is called Koryo Medicine. Traditional Koryo medicine is our indigenous and peculiar national medical heritage. Koryo medicine has a very long history.

The relics of the Stone Age discovered in many places of our country hint that already in those days our forebears made stone and bone needles and gathered medicinal plants to cure diseases.

An ancient record suggests that even before the foundation of Tanguin state, mugworts and garlics were used in medical care.

There is myth of garlics and mugworts handed down from the founding of Ancient Korea. There was "Roga" in ancient Korea (B.C. 3,000); it meant there was medical activity within the national system.

In those days, the person with high medical knowledge was called "Sonin" or "Songa"; they denied the god based on the medicinal or pharmacological knowledge and experiences. They thought the origin of substance as "Ki" and all the things were happened and disease occurred by the interaction of "Umgi" and "Yanggi".

Our forebears made the stone and bone needles to use them in disease treatment. This fact was described in volume 4 "Ibopbanguiron" of "Hwangleksomun", the longest medical book of China published in 770 B.C. to 225 B.C.

Our national medicine was further developed in the period of the three kingdoms (3rd century B.C.)

As for Koguryo, its acupuncture was highly developed and its needles were exported to neighbouring countries.

In Paekju, there was "Yakbu", the agency where doctors treated diseases and herbalists handled medicinal herbs.

In 642, the Japanese came over to Paekje and learned arts of acupuncture and became the pioneer of Japanese acupuncture medicine.

Meanwhile such precious medicinal materials were cultivated and made various drugs to use in treatment.

The "Koryorosabang" contained with medical success of those period was edited in Koguryo; it was widely used in treatment; and the medical books described the medical development successes were published in Paekje and Sinla.

Our ancients synthesized the excellent traditional treatment experiences in process of developing the TRM and published it.

The "Koryorosabang" of Koguryo, the "Paekjesinjipbang" of Paekje, the "Sinlabopsabang" of Sinla were the typical Koryo medical books published in three kingdoms.

The medication also was developed in Koguryo. The doctors of three kingdoms went over by the requirement of Japan; they contributed to the medical development of Japan; and the doctors trained by them played the central role in Japanese medical system.

The Koryo feudal state existed in the 10th century developed the metallic type for the first time in the human culture; many medical books systematized our valuable medical heritage were introduced by using the developed publication technology.

The state was greatly interested in the development of national medicine and had medical agencies such as "Taeugim", "Samgyakkut" and "Hyemung" to serve for Koryo medical development.
The excellent experiences of our national medicine were complied and systematized in "Hyangyakgugupbang", "Hyangyakhyeminkugupbang", "Chinmaekdogyol" and many other medical classics and they contributed to the advancement of traditional medicine. The "Koryo history", our historical book described as; "To save the people with medical skill and drug is the foremost work of policy".

The medical agencies in Koryo were divided into central and local medical agencies; the central medical agency was called "Chonuisa".

The medical agencies were established and the doctors were selected by the emperial examination system in Koryo.

The research on "Hangyak(TD of our country)" and its wide use in disease treatment in 12th century were the foundation of high development of TRM.

The development state of "Hyangyakhak" of those period could be found in the Annex "1. Hyangyakmokchobu" of "Hyangyakgugupbang".

The TRM in 15th-17th century was developed to the highest level in our middle ages history. Especially, in 15th century, "Hyangyakjipsongbang"(1433) 266 volumes, "Ubangryuchui"(1477) 25 volumes, "Tonguibogam"(1613), the medical encyclopedias which complied the TRM successes were published; and this books were interested not only in our country but also in the other countries where the modern medicine was developed.

The "Ubangryuchui" was the classical medical encyclopedia published by metallic type in the mid of 15th century; it was published in 266 volumes in 1477 by the joint efforts made by the scholars and prestigious doctors existed at that time.

This book is a great encyclopedia, the first of its kind in the world, which comprehensively contains the methods of preserving health and therapeutic experiences referring as many as 153 medical books.

It is quite rich in content, giving more than 50,000 treatment method, 5,400 prescriptions of gynecological diseases and 1,380 treatment method of eye disease.

"Ubangryuchui" was plundered by Japanese in Imjin Fatherland War(1592-1598), and today it is kept as national asset in Japanese palace library.

Japan completed this book with wood-block print for 10 years in 19th century, but we completed it with metallic type for 3 years in 15th century. "Hyangyakjipsongbang" was published in 85 volumes in 1433.

The eminent scholars such as Ro Jing Rye, Yu Hyo Tong and Pak Yun Dok edited and published by considering 267 medical and pharmacological books of former days including the "Hyangyakjipsongbang", "Hyangyakgauibang", "Ouchaireyohang" and "Samhujahyang yaktbang". "Hyangyakjipsongbang" described 694 medicinal herbs, 10, 706 prescriptions for 959 symptoms and treatment of diseases and 1,479 arts of acupuncturing.

At that time, it was used as the teaching material for doctor training and noted in many books in Japan.

In 16th-17th century, Ho Jun, Korea's outstanding doctor, began to write "Tonguibogam" in 1596 and completed its publication and printing with wood-block print in 1611. This book discarded useless prescriptions and gave such orderly and concise descriptions, thus the book has been highly appreciated since then as a manual of traditional medicine.

It was published in 25 volumes; it was used as clinical manual and the book covered the whole Koryo medicine.
Tonguibogam

<table>
<thead>
<tr>
<th>Item part (2 books)</th>
<th>Items are detailed in 25 volumes.</th>
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<tr>
<td>Internal part (4 books)</td>
<td>Physiological function of 5 organ, 6 part and its diseases</td>
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<td>External part (4 books)</td>
<td>Disease of body external, otorhinolaryngological and eye disease</td>
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<td>Diseases part (11 books)</td>
<td>Internal diseases, gynecological and paediatric diseases</td>
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<tr>
<td>Medicinal herb part (3 books)</td>
<td>Action and use of 1,400 kinds of TDs</td>
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<td>Acupuncture part (1 book)</td>
<td>Site and indication of 365 acupoint</td>
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"Uirimchaelyo" was published in 13 volumes in 1635 and it was used as treatment manual. 121 symptoms were described in total 67 items and its effective experiences and the prescriptions by outstanding doctors were introduced. And the prescriptions to easily make with our medicinal plants at anytime were introduced. The characteristics of this book was; first emphasized the importance of dietary, and the therapy and prescriptions of moxibustion. The above mentioned books were published many times in domestic and other countries and used significantly in clinical practices. The traditional treatment methods identified effectively in the practices were spread not only in our country but also in surrounding countries; it was the foundation of TRM development of relevant countries; and further contributed to the eastern medical development. During this period, surgical treatment method, too, was developed. Im Won Guk, a renowned doctor of 16th century (1550s), thought out the method of incising abscess in the shape of a cross (X, +) and washing out the pus with salt water. Some of successes introduced in surgical field by Im Won Guk was described in his book "Chijongbipang". This method is similar to that which is applied by modern surgery today. In the 17th century Ho Il, a distinguished doctor, devised new methods of acupuncture and wrote "Experience of Acupuncture", thus bringing Korea's acupuncture to new heights. In the 18th century Korean scholars wrote many books on traditional medicine such as "Chejungsinpyon", "Kwangjebigip" and "Kuppyubang", thereby enriching the knowledge of different departments of medicine such as internal medicine, obstetrics and gynecology, pediatrics and pharmacy. In the 19th century when modern medicine had not yet found its way into Korea, Chong Yak Yong, famous scholar, studied and applied cowpox similar to a modern vaccination so as to prevent smallpox. Ri Je Ma wrote a book titled "Tonguisusebowon" to ensure that prophylactic medicine was based on the principle of individualization to adapt to the 4 constitutional tendencies (Taeyangin, Taeumin, Soumin, Soyangin) of different categories of persons. Furthermore, in this period a large number of books on traditional medicine including, "Pangyakjappyon" and "Uijongsonik" were written so that our national medicine could be further systematized and enriched both in theory and practice. Indeed, the Korean people created traditional national medicine based on a unique theoretical system and abundant experience of treatment, so that they could live in good health for thousands of years, relying on Koryo medicine alone. In 1905 the imperialist aggressors of Japan turned Korea into their exclusive colony. For 40 years of their occupation, the luster of our traditional medicine with several thousand
It was only after the liberation of the country by president Kim Il Sung from Japanese occupation in August 1945 that broad prospects were opened up of the advancement of traditional medicine in Korea.  

Our TRM was developed under the special concern of president Kim Il Sung and the justice of policy of our national medicine development. The programme proposed to actively develop TRM in combination with modern Medicine, president Kim Il Sung's historic work “On Developing Traditional Korean Medicine” published in February 1979 fully expounded the tasks, ways and means in further developing TRM to satisfy the demands of advancing reality.  

This was a great historical significance in TRM development in our country. The “Public Health Law, DPRK” was adopted at the 4th session of sixth Supreme People’s Assembly in 3rd April 1980; thus the strategy of developing TRM was legally consolidated. The state policy of TRM development was significantly realized; thus the TRM had the possibility of rapidly developing on the scientific and technical foundation. It would contribute to the health promotion of our population and the promote the advantage of our socialist health system. TRM created by the Korean people is called Koryo Medicine with gas developed in the process of disease treatment and health promotion of people.

2. Concept, principle of TMR in DPRK, clinical practice

- Concept
TRM serves for disease treatment and health promotion of people by using the peculiar therapies such our enriched Koryo drugs, acupuncture, moxibution, cupping glass, hand skill, sauna, panitic.
It is our valuable traditional heritage and asset of our nation which is developed according to our people’s life habit and body constitution. The principle of TRM is theoretically based on the “Umyang Shaengsol” – our ancient materialistic philosophy.
The contrary natural and social phenomenon were divided into two aspects; one is called “Um” and the other “Yang”.
In TRM the various phenomenon in the whole TRM such as structure of body, physiology, pathology, treatment are divided into relative or contrary two aspects; one is called “Um” and other “Yang”; this is called Umyang in TRM. 5Heang means 5 elements – Silver, Gm(gold), Mok(tree), Su(water), Hwa(fire), To(soil).
Based on the “Umyang 5 haengsol” composed of principle of TRM, the universal theory of TRM including the mechanism theory, etiological theory, prescription theory are described; the disease condition of people is analysed; based on it, the basic data is provided to set the diagnosis and treatment.

- Clinical practice
The clinical practice of TRM in DPRK considers the principle of diagnosing the patient disease by the modern diagnosis facility, laboratory examination, indicators, objective testing results; prescribe based on the traditional medical demonstrated basis; to treat with combing of TRM and MM.
To adapt the TRM in the clinical practice, the special koryo hospitals are in central, all provinces, some cities, counties; and the traditional doctors are distributed from central hospital to polyclinics and ri hospitals of the level.
The scientific research is done to conduct the traditions diagnosis and treatment methods based on the modern basis; thus research results, instruments for diagnosis and treatment, pharmaceutical equipment are developed, and supplied in traditional hospitals and all hospitals.

Those equipments and instruments are produced in medical instrument factories and they are supplied to the koryo hospitals and all hospitals.

Various typed traditional treatment tools required for non-medication are widely introduced in treatment including acupuncture, moxibustion and cupping of different size.

All the health workers engaged in phc level, conduct traditional treatment and prevention work.

The TRM is closely combined with MM and contribute to the health promotion in the social concern and state policy of TRM.

Today, most of the health workers use the small instrument for tradition treatment like acupuncture; the health workers engaged in PHC level widely provide the traditional health methods with the aim of treatment.

TDs are produced in Kanggyae TD factory including the modernized factories, local medium and small-sized TDs production factories.

And the health institutions of different level have equipments for boiling, drying of drugs and etc; thus various typed TDs are produced and used in patient treatment.

The out and in patinas services are conducted through well-organized traditional health care network from central to PHC level.

3. TMR policy

To promote and develop the TRM-our traditional medicine is important in the health policy of DPR Korea.

Combining the TRM and the Modern Medicine(MM), and the high rate of traditional treatment in the treatment and prevention work are the main components of public health policy.

3.1 TRM policy making

The MoPH of DPRK draws the TRM policy under the guidance of the state. The charged department is TRM office of MoPH.

The TRM office of MoPH instructs policy relevant to the development of TRM and monitors, controls of its implementation.

3.2 Policy documents

- Public Health Law

The "Public Health Law of DPRK" was adopted as law of Supreme People's Assembly in April 1980. Article 16(TRM) defined; "The state should develop the traditional treatment method-the excellent therapy of our nation, increase the traditional medical network; and widely adapt the traditional treatment method based on the modern medical diagnosis in the medical institutions." Therefore our policy direction of TRM was determined.

Article 30(Research on TRM and Folk remedies) defined; "The health institutions and medical science research institutions should strengthen the research on science of TRM and the TRM and Folk remedies should be systematized and further developed."

Article 37(Cultivation and collection of herbs) defined; "The central health leading institution, its relevant institution, enterprise, organization should build the production base of TDs and increase the production of TDs."
- Article 7 of “Medical Law of DPRK” (Applying principle of traditional treatment method) defined; “To introduce the TRM is important way for the enhancement of medical work to high level. The state should combine and develop the TRM and MM and apply the traditional treatment effectively to the treatment work.”

Article 31 (Traditional medical method, introduction of natural factor) defined; “The relevant medical institution should widely introduce the traditional medical methods such as the therapies of TDs, acupuncture, moxibustion, cupping and the natural factors such as mineral spring, hot spring and mud for patient treatment.”

Article 8 of enforcement regulation of “Medical Law of DPRK” defined; “To introduce the TRM is important way for the enhancement of medical work to high level.” Article 33 defined; “The medical institution should widely introduce the traditional medical methods such as the therapies of TDs, acupuncture, moxibustion, cupping and the natural factors such as mineral spring, hot spring and mud for patient treatment.”

The above mentioned regulations and rules were adopted for the execution of medical law and enforced.

The “Herbs Law of DPRK”, “Drug management Law of DPRK” were adopted and drugs used in koryo health care, the quality of traditional herbs, production and use of TDs are controlled by the law.

3.3 Policy execution
The policy of TRM is implemented under the universal guidance of TRM office of MoPH of DPRK.

The relevant department of MoPH monitors and control to play the positive role in health system in accordance with the public health policy.

3.4 Role of TRM, Integration into State health system

- Role of TRM
The TRM is the one of main area in the national health system.
The rate of traditional health care in the phc level is over 50% level.
It plays certain role in the regard of some of diseases which are difficult to cure with modern medicine.
The traditional health care is not limited in the regard of some of diseases, it is introduced in the treatment of most of all diseases.
The TRM is traditional medicine of our nation; the treatment method and remedy are simple and easy to purchase, less reaction and beneficial; thus it is considered as valuable.
The TRM is the important component in national health system.

- Integration into State health system
To direct the great concern to the TRM is important public health policy.
The state proposed the health policy of combining the TRM and MM from long ago and consistently implements it.
In May 1947, the 37th meeting of North Korea People’s committee was held, the integration of TRM into national health system was addressed and the measures relevant to it were taken.
The state conducted the survey and research on the medical herbs(TDs), thus the foundation for TDs production was provided.
The 5th conference of Central Committee of Worker’s Party of Korea was held in April 1956; the conference emphasized the research on TRM adapted to our people by using the
advantage of TRM in the health work. 
Due to the social and economic factor, the private economy was existed in our country till the early of 1960s, the state allowed the traditional doctors of private hospital to work in health area. 
They were gathered and worked collectively in the certain place, while the others served in the hospitals operated by the state; thus the traditional doctors played their role in national health system. 
In the period of socialist construction, adequate measures were taken to develop the health by combining the TRM and MM. 
The fourth conference of Worker’s Party of Korea held in September 1961, addressed to develop TRM with MM and to systematize the TRM theoretically by strengthening the research on the whole of traditional medicine. 
The Policy program of DPRK was announced in the first session of 4th Supreme People’s Assembly in December 1967; here emphasized the issue to actively develop health work by combining of Modern Medicine and TRM in the whole health. 
The TRM research section was established within the national health system in 1956. 
It was developed in TRM institute in 1962, and raised to Academy of TRM Science in 1983. 
By the national policy of TRM, traditional general hospitals within the national health system were established in all provinces in 1960, and provided the special traditional health care for the population in those hospitals. 
And the traditional treatment section is well organized for specializing the traditional treatment in central, all level, specialized hospitals. 
The traditional doctor, traditional pharmacist, dispenser specializing the traditional treatment exist in polyclinics, ri hospitals, ri clinics of PHC level. 
The national traditional health care system is as follow;
3.3 Ethic issues
- Ethic responsibility of traditional doctor
  In providing the health care, the traditional doctors should know the right of all patients including the women, children, elderly exercised in disease treatment.
  The health workers conducting the traditional health care in our country have responsibility of their behaviour to be approved by the patient(family).
  The traditional doctors have responsibility of expressing the quality, safety of medical behaviour and the medical intervention to the patient.
  The medical behaviour is to be done in the condition of keeping the patient’s individual information(constitutional fault, ill condition, hereditary fault, etc.)
  They are responsible for providing the medical behaviour in the way of convenience for the patient; the doctor is legally, socially responsible for his treatment and its results.

- Right of patient.
  All the peoples in DPRK have right of receiving the complete and universal free medical care by the “Health Law of DPRK”.
  In DPRK, the man is master of everything, the man is valuable in the world, therefore everything of nature and society is served for people; this is the natural demand of socialist society.
  In delivery of health care, all the patients can exercise the legally, socially recognized right; the patients receiving the traditional health care have the right to access to the information of their health.
  All the patients have the right of accessing to the treatment method which they want and sure.
The patients have the right of getting expression of the patterns of treatment and the treatment process generated from it.

4. Laws related with TMR

4.1 Registration of traditional doctor
The person received the education in national education system are registered as traditional doctor within the public health system.

4.2 Right, authority of traditional doctor
The traditional doctor has right of conducting the medical behaviour in the public health system.
The traditional doctor has equal right with modern physician and has state legal protection in the medical activity.
The treatment method, treatment instrument, TDs developed by the traditional doctor or traditional pharmacist are protected by the state Law.
The fund required for the research activity of TRM is provided from the state.
The patent is applied for the research success and is protected legally.

4.3 Registration of TDs
The TDs are registered in the national system.
If the TD is developed, it is clinically tested in the relevant institution under the approval of MoPH. The possibility for production is identified; the component of TDs is tested in the national medicine inspection agency.
Then the effectiveness of drug and the pharmaceutical dynamics process are analysed in the national clinical pharmaceutical committee; the reaction is considered; the data is submitted to the standard review meeting of MoPH; it is approved by the central quality control institution and the national standard is fixed by the MoPH.

4.4 Quality assurance of TDs
Chapter 4 of “Drug Management Law of DPRK” defined, the main requirement of drug testing, the official of drug testing, target of drug testing, testing criteria, classification of testing, request document of testing, presentation of testing sample, scientific, standardization of testing, assessment of testing and keeping of testing sample.
The DPRK has well organized system for quality assurance of TDs.
The Medicine testing agency of MoPH has excellent technical group for quality assurance of TDs and the quality of TDs is assessed by them.
The TDs testing agency of all provinces has the TDs testing section; the drugs testing sections of all treatment and prevention institutions assess the quality of TDs according to the testing regulation.
The produced TD is tested by national drug inspection agency once in 3 months from early its production; then the quality is assured to use and sell.

4.5 Pharmacopoeia of TDs
6 edition of Pharmacopoeia of DPRK was published in 2003.
Pharmacopoeia is composed of 1, 2 volumes and the volume 1 is about pharmacopoeia of TDs.
Pharmacopoeia defined the general rules of TDs, legislation and preparation.
The quality indicators of herbs are set up; and the methods such as the impurities removal, cutting, smashing, milling, leeping, soaking, scalding, boiling, steaming, parching are defined.

The general rule of preparation described; the definition of herbs preparation, properties, basic agent, preservative, pigment for keeping the quality and the medicinal effect; standard, combining principle, its usage of auxiliary material, equipment required for herbs production, production area, standard intervention, hygienic environment of factory, pharmacological and biological equality between the products, size of particle and exsiccation decreasing of herbs, pattern of individual drugs, general particular, testing and the storage condition.

The TDs preparation is classified as powder, skin tape, capsule, ointment, tapeum, suspension, injection, suppository, tea, medicinal decoction, tincture, granulae, taffy and extract.

TDs testing methods include: testing of property, component, fluorescence, purity; analysis of extract and oil; tannin quantitative method; toluol distillation; the size of fraction and particle; method of allowable error and etc; thus the quality of herbs are controlled.

150 varieties of best medicinal herbs are registered here; and their quality and the safety is fully tested in the nation system of drugs testing.

The pharmacopoeia described the composition of TDs prescription; property, form, dose, usage of herbs; indication of drugs and the standard testing method.

400 varieties of medicinal herbs and 200 varieties of traditional preparation are described in the pharmacopoeia; 200 of the prescriptions of classical TDs are presented by classification in the Annex.

The pharmacopoeia was edited in the pharmacopoeia committee of MoPH, DPRK.

4.6 Collection of TDs prescription

- “Collection of TDs prescription”

It described the TD prescriptions used for the health of population, treatment and prevention for a long time.

It was published in the TRM institute of Korean Medicine and Science Academy in 1981.

It had 3,500 prescriptions and 1,600 prescriptions of simple drugs.

It was divided into; prescriptions for ionic, by traditional disease symptoms, 4 constitution, by modern disease; composition of every prescription, dose, making and usage, action, increasing and decreasing method were described.

The front part of the book described the TDs prescription and the preparation principles, the reference contents in Annex in second part, the forms and original picture of 290 varieties of medicinal plants, and the names of medicinal plants to be distinguish conveniently were also written.

Considering the common classification system of systematic diseases, the prescriptions of single moxibustion, folk remedy, TDs preparation were provided to use according to the symptoms and the name of diseases; classical prescription, TDs preparation, experience and folk remedy were given in turns in the names of modern diseases.

The herbs used in the prescriptions and the folk remedy in “Book of TDs prescriptions” are produced in our country.

The individual herbs and the prescriptions were given according to the effectiveness handed down from long age, and the data of pharmaceutical action identified through the internal and external basic testing and clinical experiments.
- "TDsmanual"
This book is manual of TD to be helpful in use of TDs effectively. The authors were O Su San and Kim Ju Yong.

It has 4 parts and Annex.

In first part- the general methods of making various TDs are given; in second part- the TDs are classified by disease treatment and composition, property, purity, indication, usage and the storage methods of individual drugs were given.

In third part- the ingredient, indication of TDs are described in table by dividing collection, composition, action and indication.

In the fourth part- the composition, usage indication of 225 TDs prescriptions are given and the seeking of TDs and its prescriptions in the Annex.

- The "Essential Drugs", "Popular Drugs Manual" were published; the TDs which could be purchased commonly were described. The composition of prescription, the form of drug, indication, usage and the dose were introduced in detail.

- The "Practical TDs prescription" was published in 2006. (259 pages)

4.7 Is there EDs(essential drugs) list, or in developing
In 2007, the MoPH developed the National EDs List.
It described the several varieties of essential TDs produced in our country.
The book dealt only with the TDs list is to be planned to publish.

5. Use of TDs(traditional drugs)
5.1 Production of TDs
The Chapter 2. "TDs production" of "Drug Management Law, DPRK" defined; the planning of production, manufacturer, production capacity, responsibility and role of technical official of drug production, pharmacopoeia and drugs standard, technical regulations and standard intervention of production, packing, production process and hygienic condition of production.

There is national production plan system.
The DPRK has about 200 factories of producing the TDs under the TDs Production and Management Department of MoPH.
These factories produce the thousands of TDs of about 160 kinds.
Its forms are pill, powder, granules, liquid and they are all mass consumed.
The TDs production and supply system is as follows:
5.2 Storage of TDs
The "Drug management Law DPRK" defined the main requirement of drug storage and supply, facility of drug store, the store method of drugs, the container for store, warehousing and delivery, measuring, supply order, transportation, sale and etc. "Herb Law, DPRK" defined the principle of herb store.

5.3 Distribution of TDs
The Article 40 of "Herb Law, DPRK" defined the supply principle of herbs. The TDs are distributed in the principle of keeping the timeliness equally by the national universal system after the regional needs are considered.

The TDs produced according to the state standard, are supplied to all hospitals in planned way through drug institutions of Drugs Department of MoPH, province, city, county(district).

In all the treatment institutions, the drugs are provided free to the out and in-patients according to the prescription of doctor.

The TDs dispensaries in each province, city, county(district) sell the drugs in cheap price. These dispensaries play the important role in the prevention of diseases for the population.
5.4 Export and import of TDs
The Article 41 of "Herb Law, DPRK" defined the principle of herb export.

5.5 Use of herb field (cultivation, collection, deposit)
The "Herb Law, DPRK" was adopted as decree of standing committee of Supreme People's Assembly in 25th of December 2004 and the herb is cultivated, collected, stored by enforcement rule and regulation of herb law.
The "Herb Law" laid down the standard of herb law, cultivation of herb, composition and protection of herb resource, purchase, contents of guidance and control of herb work.
The Chapter 1 defined: the definition of herb, principles of cultivation, resource and protection, purchase, scientific research, exchange and cooperation.
The Chapter 2 defined: manuring and cultivating, drawing of cultivation plan and its instruction, special and mass cultivation, working principle by farming process, cultivation method for various herbs, land re-classifying, herb cultivation of the other countries, month for herb cultivation, massive herb cultivation, herb yield and report of output.
The DPRK has public herb farms producing the TDs herbs and its cultivation area is tens of thousands. Its variety is several hundreds.
There are deer farm, musk deer farm and the animal traditional herbs are produced here.
There are 160 herb management centres by regions and the herbs are produced in this system.
The certain herb fields in every herb management centre are used as seed farm.
According to the public purchase system, the system is established to purchase the herb from individuals.
In regard of relevant variety, the collection period is set up and the traditional herb is collected when its condition is satisfied according to quality regulation set by the state.
The packing of herbs is done by the packing units. They are stored by clearly identifying the name of herb, name of supplier, collection and its place, serial number, quantity, warehousing date.
The material for traditional drug is directly transported to the TD production factory and stored according to the regulation by varieties in storage place appointed by state.
The storage place are well organized by regions and the corporation under the TD Production and Management Department of MoPH monitors and control the storage state universally.

5.6 Use of TDs
The Chapter 5 of "Drug Management Law, DPRK" laid down the main requirement of drug use, use extent, use of popular drugs, report of drugs toxic symptom, import of drugs, prohibition of certain drugs possessed by individuals.
In our health system, the traditional drugs approved as the state standard are widely used in most of all hospitals by prescriptions of doctor or pharmacist according to the diseases.
The traditional drugs to be used by individual in families are sold by the prescription of pharmacist in the national commerce network system.(people's dispensary)

6. Is TRM influenced by the WHO, TRIPS
The "Copyright Law, DPRK" was adopted as the decree of standing committee of Supreme People's Assembly in March 2001.
The Article 5 (Copyright protection of foreigner) of Chapter 1"Basis of Copyright" indicated
that; the juridical person of other country joined in treaty contracted by DPRK or individual copyright has right of protection; non – treaty juridical person of other country or individual has right of protection in accordance with above mentioned law when he/she expressed work first in out country.

The DPRK encourages the development of exchange and cooperation with other country and international organizations in the copyright area according to the Article 7(Exchange and cooperation in copyright area).

7. Development of human resource
7.1 Human resource engaged in TRM area at present
The numbers of specialists engaged in TRM area are above thousands.
The traditional doctor, the traditional pharmacist, traditional assistant doctor, traditional drug dispenser provide the health care in treatment and prevention institutions.
All the TRM specialists are trained within our TRM special education system.
Modern physicians including the traditional specialists are involved in providing the traditional health care.

7.2 Training, clinical training, community medicine
- Training
To develop the TRM, the DPRK has put priority on training of specialists of this field.
The state established the system of training the traditional doctors in every provinces from 1947 till today.
The Pyongyang Medical University including the all provincial Medical Universities have faculty for the education of TRM.
The health workers are trained through the TRM basis, traditional subject, special practice according to 6 year curriculum.
The TRM or TDs faculties of Medical Universities educate the new typed doctors trained in TRM and MM to serve in the traditional treatment and research fields.
Originally the TRM faculty was in the Pyongyang Medical University in 1958.
The TRM faculties were established in all Medical Universities until the end of 1970s.
Our country has such 10 faculties and the education period is 6 years.
The traditional pharmacists qualified in MM and TDs are trained in the TD section of Drug faculty of Medical University and the education period is 5 years and they get the pharmacist qualification after graduation; there is 5 year TDs university.
The assistant, TDs dispenser, massagist are trained through the 3 year training.
The traditional special nurses are trained through 2 year education and the correspondence education system for secondary health workers(traditional assistant doctor) is established.
The public policy of combining the MM and TRM is successfully embodied in the traditional specialists training.

- Clinical training
The well organized practice system is established for present post traditional health workers.
According to the plan of relevant health institutions, not only the traditional health workers but also the modern physicians get the special practice for traditional treatment in traditional treatment special sections in all provincial Koryo hospitals and central level hospitals including the TRM Science Agency.
The TRM Science Academy has played importance role as the central practice base since its foundation.
In the past 3 years, 350 students of TRM faculty conducted the clinical practice and 50 peoples received the Master and Doctor degree through the education and practice by curriculum of doctoral institute of TRM Science Academy. Annually the short-term practice, scientific society and discussion are organized in the Science Academy. The significant conferences were; 20th national TRM discussion, 16th national traditional science discussion, 15th national traditional surgery discussion and 18th national acupuncture discussion. One year reorientation system of TRM for present health workers are provided. There is two reorientation system; one for traditional doctors and the other for modern physicians working in treatment and prevention institution. The reorientation for traditional doctors is conducted in reorientation school for 3 ~ 6 months. The 1 year training of TRM for the general doctors is conducted in the Doctor Recountation School. The aim of reorientation is to improve the qualification and skill of health workers. The above mentioned education system is for the present health workers to actively introduce the MM scientific success and advanced treatment methods in traditional health care. Every doctors have examination for their qualification once in 5 years. The education system of doctoral institute is the system for training the specialists engaged in TRM area. The curriculums are divided into three- for researchers’ training, correspondence and special curriculums. Today, the doctoral institutes are in Pyongyang Medical University, all provincial Medical University and some research institutions.

- Community Medicine
The traditional health care is provided at PHC level for population. The traditional doctors are distributed in polyclinics and r.i hospitals to access the traditional health care to the population and they are charged of traditional health care of relevant area. The rate of traditional health care at this level is above 50%; it covers the general scope including the most of internal diseases, some diseases of surgery and special field. The health care is provided in the way of combining of TRM and Modern Medicine; the traditional medical treatments such as traditional acupuncture, cupping, moxibustion account majority.

7.3 Special treatment methods
Researches are done for scientific way of TRM and successful results are applied in clinical practice. The typical treatments are as follows;
- Treatment of osteomyelitis with traditional drugs.
- Treatment of aseptic necrosis of caput femoris with acupuncture and TDs combination
- Treatment of spontaneous gangrene with modern treatment and TDs combination
- Treatment of prostate gland hypertrophy with electric acupuncture and TDs combination
- Treatment of stroke with kinocobonin injection
- Treatment of cerebra thrombus with leech thrombus injection
- Constitutional treatment by assessment of 4 constitutional tendencies
7. Acupuncture, moxibustion, cupping

Acupuncture, moxibustion and cupping therapies are the main components in traditional treatment.

- Acupuncture
  Prevent and treat the disease in the method of stimulating physically with the acupuncture to the 365 traditional acupoints of 12 meridian of human body and the acupoints recognized by the modern medical science technology. The acupuncture and moxibustion study the meridian theory, the site and action of acupoint, mechanism of act and usage of acupuncture and moxibustion, and the treatment methods following the diseases. The acupuncture used nowadays are needles made with ace, copper, triangular, foliate, intradermal, hand, turning, heating, needle for burying catgut, electronic needle, laser needle, far infrared needle and etc. Most of all diseases including the internal medicine, diseases of nervous system, sprain, partial surgical diseases are treated with acupuncture.

- Moxibustion
  Prevent and treat the diseases stimulating the regions of 12 meridian with the heat generated when the mugwort burns. The treatment with moxibustion methods include; the direct moxibustion and the indirect moxibustion(moxibustion with garlic, salt, ginger).

- Cupping glass
  Treat the diseases stimulating physically in the method of creating the vacuum pressure in the cupping glass with the heat or vacuum pressure device, applying the cupping glass to the skin, and drawing out the blood or generating the congestion. The cupping glass are various such as ceramic, glass, organic glass, plastic cupping glasses and the cupping glass used with bamboo. The methods of applying the cupping glass are vacuum and flame cupping. The therapies with cupping glass are wet(stabbing of meridian) and dry cupping therapies. The wet cupping therapy is to stimulate the relevant acupoint part with foliate and triangular needles and draw out the blood by applying the cupping glass. The dry therapy is to treat the disease by applying the cupping glass to the relevant acupoint part and generating the vacuum pressure.

8. Research and development

8.1 Research institutions
The typical research institution is TRM Science Agency under the MoPH. The composition and activity of institute of TRM Science Agency are as follows;

- Internal institute:
  Research sections of digestive, circulatory, respiratory and urinary organ Study the traditional treatment principles of different internal diseases of high morbidity and loss of working ability and the enhancement of its treatment efficiency.

- Acupuncture institute:
  Research sections of acupuncture, moxibustion, obstinacy, hand skill, rehabilitation and meridian
  Study the mechanism of act and the treatment effect of acupuncture, moxibustion,
cupping and the hand skill; and apply in clinical practice by combining the MM and Acupuncture and the modern medical example of theory of meridian.

- Surgery institute:
  Research sections of general surgery, abdominal surgery, tumour, gynecology, skin and ophthalmology
  Study the diseases to be difficult to treat with the modern method such as otorhinolaryngology and derannencephalic surgery, tumour, spontaneous gangrene, aseptic necrosis of caput femoris, anal disease, osteomyelitis, incipient cataract, cryptogenic amblyacousia and etc.
- Constitution institute:
  Research sections of constitutional grouping, constitutional drug and constitutional acupuncture
  Study the theoretical basis and the science of our peculiar institutional medicine.
  Conduct the experiments of medicinal, pathological, physiological, biochemical contents to ensure the efficiency of traditional treatment in scientific way and provide the basic data for introducing in clinical practice.
- Basic institute:
  Conduct the experiments of medicinal, pathological, physiological, biochemical contents to ensure the efficiency of traditional treatment in scientific way and provide the basic data for introducing in clinical practice.
- Classical institute:
  Conduct the discovery, edition and translation of our TRM classics and the historical, bibliographical research.
- TDS institute:
  Study the TDS resource development, analysis of effective ingredients, standardization of drug production, improvement of drug type, prescription of TDS.
- Information centre:
  Build database and conduct the information service for TRM.
- Koryo life-giving water centre:
  Conduct the research on the treatment effect with water and the reducing and oxidizing water service.
- Specialist training
  Train the qualified specialists, scientists through reorientation of post health workers, fellowship, doctoral institute with training of TRM professionals.
- TRM book writing
  Write the books of TRM manual, EDs, Non-medication(English), TRM great dictionary and etc, and use them in clinical practice and TRM research.
  Especially the reference “Folk care at PHC level” is widely used among the household doctors.

The published books are as follows:
- Folk remedies treatment 2006 260 pages
- Food therapy made with herb 2005 412 pages
- Foot stimulation therapy 2006 211 pages
- Family medicine manual 2004 675 pages
- Herb plants and its use 2005 440 pages
- Koryo clinic medicine 2003 650 pages
- Practical TDS prescription 2006 259 pages
- Constitutional medicine and drug therapy 2006 189 pages
The pharmacology and natural substance institutions of Academy of Medical Science, Korea Traditional Drug Technical Centre, TRM departments of all level Medical Universities, Koryo special hospitals, every level medical institutions conduct the research on TRM. The research contents include; traditional treatment methods and instruments for treatment, research on traditional drugs, research on the whole TRM, research on combination of modern and traditional medicine.

8.2 Policy issues
- Plan-making step
  The research on TRM is done in accordance with the national plan.
  The plan is made according to the program of Science Guidance office of Academy of Medical Science of DPRK.
  The draft of new research task draws correspondingly to the document, program, policy data and document summary.
  The plan, policy data, document, program are submitted to the relevant institute of TRM Science Academy to consider it.

- Plan consideration step
  It is considered according to the program in the conference of relevant institute of TRM Science Academy.
  Then submit it to the conference of TRM Science Academy.
  In the conference of TRM Science Academy, it is considered by tasks, synthesize and submit it for consideration of Medical Science Academy.

- Step of consideration of research success data
  Consider in the relevant research section and submit it to science conference of institute.
  Then consider in science conference of TRM Academy and submit research paper to Medical Science Academy(MSA).
  The MSA considers the contents written in plan such as the implementation state of research plan, solved scientific and technical issues, introduction and etc.

8.3 Infrastructure for research
The TRM Science Academy includes 7 institutes; Internal medicine, Surgery, Acupuncture, Moxibustion, Constitution, Basis, Traditional Drug and the information centre.
Internal medicine, Surgery, Acupuncture, Constitution institutes provide the out and inpatient service and each Institutes have 10 research sections.
The pharmacology and natural substance institutes under the Medical Science Academy have research sections of ingredient, preparation, pharmacology, analysis and they conduct the research on traditional drugs.
We have TRM faculty in all level Medical universities, research sections in all provincial Koryo hospitals, research sections of traditional drug, herb cultivation, medical remedy,
microorganism in Korean Traditional Drug Technical Centre. The traditional TRM and Acupuncture associations were organized in early 1973. Those associations have pyramid mechanism. Researchers, traditional doctors, pharmacists are involved in this organization. This institution disseminates the policies and strategies of TRM development among its association members. The national science discussion for TRM, Acupuncture and Moxibustion is organized once in every 2 years and the regional discussion is done once in annual. To disseminate the most advanced success and the experiences, the lecture is organized for specialists.

8.4 Human resource
The TRM specialists of Pyongyang Medical University including the TRM Medical Science Academy, researchers of all provincial Medical Universities, traditional doctors specialized in traditional treatment, and many specialists are engaged in research. The specialists of every level treatment and prevention institutions are involved in TRM research.

8.5 Clinical experiments, effect, safety, quality
The traditional drugs, after the basic testing are clinically examined in the appointed treatment institution under the approval of relevant department of MoPH. The State Clinical Pharmaceutical Committee assesses the effect of drug, reaction, dosage and usage, safety and the quality of drug in the clinical testing period. After the quality assessment of drugs is completed in relevant treatment institution, the consultation is conducted under the sponsorship of MoPH, and the public standard is defined. All these processes are conducted in the legal framework of state and on the basis of understanding of social ethic issues.

9. International cooperation
9.1 Cooperation with WHO
The TRM Science Academy of DPRK was appointed as WHO collaborating Centre for TRM in 1988. Its activity was continued till 2004 and implemented its duty successfully. In those period, the DPRK strengthened the data and technology exchange with other countries and the references and 8 volumes of annual report written in English were published, distributed with the cooperation of WHO. Annually, several studies and WHO researches were successfully implemented. The TRM Science Academy had trained many foreign trainees qualified with TRM and issued No.9 of technical bulletin of WHO collaborating Centre for TRM.

9.2 Multi cooperation
The TRM, for its advantage, is one of necessary action for health promotion of humankind. For the training of TRM specialists in other countries, the DPRK published the reference titled of "Clinical Practice of Acupuncture" (Published in English with the support of WHO, SEAR organization in 1991). We trained more than 120 specialists of many other countries including Mongol, Finland, Hungary, Iraq, Bulgaria, Cuba, Benin.
And we gave active assistance to the herbs resource development in other countries, including Mozambique.

Our traditional health service is provided in developing countries of Asia, Africa, Europe, Latin America and in some of European countries.

Today, the TRM specialists of DPRK provide the traditional health service in Russia, Poland, Mongol and etc, and they train the traditional doctors in many countries of Latin America including Mexico, Equador, Peru, Dominica.

The DPRK promotes the cooperative research, mutual visiting with other countries and the various forms of technical exchange.

With the cooperation of WHO, WR office in DPRK, the MoPH published and distributed the references of “Guidelines on TRM use” and “Non medication(English)” in “Training on TRM in WHO, SEAR countries” opened in Pyongyang from 22-24 in June 2005.

The DPRK can respond positively to the cooperation with WHO, and to the multi cooperation with many world countries in the TRM field.