

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
MINISTRY OF HEALTH, REPUBLIC OF UZBEKISTAN

THE STUDY ON THE RESTRUCTURING OF HEALTH  
AND MEDICAL SYSTEM  
IN THE REPUBLIC OF UZBEKISTAN

FINAL REPORT  
SUPPORTING REPORT



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DECEMBER 2003

SYSTEM SCIENCE CONSULTANTS INC.

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## Contents of Final Report

Summary

Main Report (including Appendices)

Supporting Report

Data Book

### Foreign exchange rate

USD 1.00=UZS 980 in November 2002  
(Main Report Chapter 16 Priority Programs)

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(Main Report Chapter 16 Priority Programs)



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**1**  
**HEALTH ECONOMICS SEMINAR**





## **DETERMINING HEALTH FINANCING OPTIONS: AN EXAMINATION OF INTERNATIONAL EXPERIENCE\***

\* Prepared by Maria Bautista, for the Consultations on JICA project: Study on the Restructuring of Health and Medical System in the Republic of Uzbekistan, November 2002, Academy for Educational Development and the Systems Science Consultants Inc.

## **On the Usefulness of International Comparisons**

Although there can be no 'transfer' of systems, there is now a wealth of experience to learn from. A review of basic principles and experience can offer a good starting point to determine directions for a country's own adaptation.

## A Brief History of Social Insurance Systems

Late 18<sup>th</sup>-19<sup>th</sup> Century – formation of sickness funds by and for workers; mutual benefit societies; cash benefits

1883 – Germany: Bismarck legislation for compulsory membership in sickness fund, with premiums co-shared by employer; ‘solidarity’

1930s – ‘social security’; universal health care programs; UK NHS launched in 1948; Beveridge Model

## History, continued

→ Common trend toward comprehensive coverage, access irrespective of income and broad solidarity between income and socio-economic groups.

U.S. system – a different path;

- preference for private insurance; statutory for poor and elderly (Medicaid, Medicare) – 1965;
- States legislating employers provide HI plan

What is the over-all level of funding or spending?

### Issues on Spending Levels

1. Total expenditures (both public and private) per capita rise with income.
2. The percentage of GDP does not seem to be strongly correlated with income.
3. Comparisons are not so straightforward because countries have different definitions of what constitutes health care, as opposed to social care.

## Other Ways of Analyzing Spending Levels

- National Health Accounts (NHA)
  - wide adaptation among developing countries;
  - make explicit how much money is being spent, where the money comes from, and what is being done with the money;
  - Facilitates decision-making;
  - Provides baseline for evaluating reforms.

What is the source of funding?

## Sources of Funding

1. General Taxation
2. Payroll Taxes
3. Private Sources

Note: Most OECD countries finance medical care benefits through mandatory earmarked payroll taxes.

## Issues

1. The pressure for financing reforms stems from fiscal pressures rather than desire to protect citizens from financial risk of illness.
2. Transferring from a 'free' system to social insurance provides little 'insurance' gain.
3. To apply payroll taxes requires ability to tax. If coming from a large state sector, then state less likely to pay premiums under fiscal constraints.

4. Diminished ability to provide insurance  
imply widespread adoption of ceilings on  
benefits or benefit caps.
5. Most developing countries have first-dollar  
coverage (pay only up to the ceiling or cap)  
– providing little insurance coverage for  
high costs illnesses

## Transition Economies

National Health Insurance Funds in Hungary (1991);  
Czech Republic (1992); Slovakia (1993)

Payroll-based systems in Lithuania, Turkmenistan

Burden of Payroll Contributions (% of net wage):

Hungary – 20%, Albania, Lithuania – 3.5%

Over-all payroll tax (incl. Social security):

Hungary: 60%; Macedonia – 30%

Average for Western Europe: 31% of net wages

How is care purchased? What  
payment mode?

How is money spent on in terms  
of benefits?



**What is the over-all coordination and management of the system?**

### **Socio-Economic Considerations for Administration of HI system**

1. Physical, social infrastructure – can records be automated?
2. Regularity of employment and incomes relevant to the design;
3. Level of management prevailing – generation of data, use of information, accountability of semi-autonomous bodies;
4. Administrative Cost – cannot exceed 8-10% of contributions;
5. Availability of professionals – public health, epidemiology, hospital management, information systems, logistics, health economists, planners, public relations

## Other Considerations

1. Semi-autonomous body where an external board of directors of public council is constituted; with representatives from relevant government departments, employers and workers
2. Main Groups of Administrative Function:
  - membership registration and identification
  - tasks dealing with members' claims
  - operation of facilities, if unified model
3. Instituting Controls in the System
  - Financial, Quality Assurance, Membership controls

## Managed Care

- Largely a U.S. model
- Refers to a variety of mechanism to control utilization of specific health care services
- Pure form: HMO – with its own network of providers; emphasis on preventive care to reduce long-run costs to enrollees;
- Variations:Independent Practice Associations – contracts providers
- Pays for specialist care based on case-mix

## Community Financing Schemes

- Collective efforts to pool funds for a variety of services: drugs, OP visits, funerals, etc.
- Success depends on level of social capital (community cohesion), type of funds (those with assets more successful), leadership, size of the pool, and outside support in terms of training in planning and managing funds

(China, Thailand, Vietnam)

## Issues for Countries new to Insurance

1. People used to 'free' services. High expectations.
2. Management - Retention of state ownership but management autonomy and controlled development of incentives necessary than all out privatization.
3. Covering rural areas – develop local insurance initiatives within national schemes (a lesson China, Vietnam).

## Other issues for countries new to Insurance system

4. Insurance system and MOH strong partnership – use the incentives provided by insurance money to direct resources where they are needed through active purchasing role; develop treatment protocols
5. Staffing of medical facilities – rationalize with the end in view of having economic size of units;
6. Create compulsory system to avoid adverse selection (e.g. people insure because they know they will have large requirement of insurance)

## Which Model to Adapt?

- Need to consider health sector objectives
- Need to consider capacities, both administrative and delivery system
- Lessons from other countries

## Experience from International Comparisons

1. Health financing systems largely evolutionary and take into account societal consensus. Early models developed with a background of weak professional system and limited technology.
2. Asia's NICs successfully implemented SI only when they had relatively high income levels, largely urbanized and large wage sectors, *relative to informal sectors.*

## Lessons, continued

3. Initial stages will yield macroeconomic costs arising from cost inflation – due to moral hazard from insurance (higher demand; capital investments – cost push);
4. For administrative feasibility, there is a need for large wage sector paying taxes as base.
5. Explore Community Financing schemes

## Conclusion

Not a question of to insure or not to insure, but one of timing! For example, in South Korea

1977 : insurance for individuals in firms with more than 500 employees; means-tested for poor in rural areas;

1980: civil servants, teachers, military, pensioner

1983: for firms with 16 or more workers

1989: covered self-employed informal and agricultural workers

## An Incremental Approach to Social Insurance Development

- 1) Get a law passed – statutory basis; creation of a quasi-government body
- 2) Support primary health care initiatives by organizing community financing schemes with government assistance/subsidy: management training, drug supply
- 3) Cover employees of large enterprises;
- 4) Contract with facilities close to these enterprises; develop centres of excellence
- 5) Study schemes for civil service, teachers, military



2

**EMERGENCY MEDICAL SERVICE AND SYSTEM OF**  
**SPECIALIZED MEDICAL CARE SUPPLEMENTARY**  
**PAPER**





## **2. EMERGENCY MEDICAL SERVICE AND SYSTEM OF SPECIALIZED MEDICAL CARE SUPPLEMENTARY PAPER**

### **2.1 An Elaboration of the Current Health Care System in Uzbekistan and Directions for Reforms in Health Care**

This first part of the paper looks into the method of research used in the conduct of the study and elaborates on the working group concept that was used to elicit the participation of counterparts and stakeholders in the drafting of the Master Plan. The second part examines the application of the different approaches to the assessment of the Uzbekistan health care system and recommends options for the reform process.

#### **2.1.1 Methodology of Research**

This research includes 2 basic components:

- 1) evaluation of the current situation in healthcare
- 2) strategic plan and design of reforms in health care for the Plan Period

The current situation was assessed based on field research carried out in health care institutions and administration of 12 regions in 6 pilot provinces; through the use of research data from international projects; and on an examination of current normative and legal acts and statistics data. (List of studied documents is given in Attachment 1, the volume of carried out researches is given in Attachment 2). The evaluation as well as the features elaboration (design) of the General Plan was approached from the perspective of scientifically proved research and design (project) approaches.

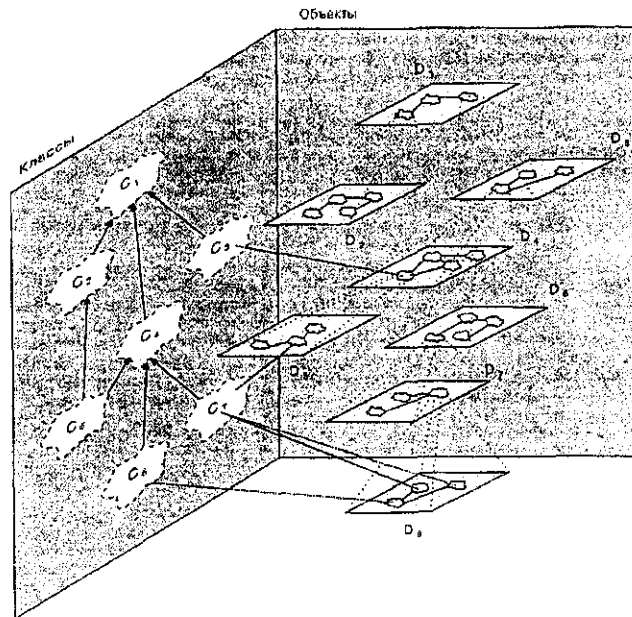
- 1) Stage and regional approach
- 2) Systematic object-oriented approach
- 3) Structured-functional approach
- 4) Cost-effectiveness approach
- 5) Sectoral approach
- 6) Intersectoral or horizontal approach
- 7) «Full specter thinking»

(1) **STAGE AND REGIONAL APPROACH IS BASED ON** stage-by-stage planning of reforms in every region. It gives the base for individualization of reforms because the situation in every region would be different and reforms would be of different speed. At the same time, the vector of reforms is directed at the country as a whole takes into account some local peculiarities in different areas.

(2) **SYSTEMATIC OBJECT-ORIENTED APPROACH** is universal for the different spheres and is developed in a branch of science called Systemology. Because of the stormy development of information science into the classical Systemology, the object-oriented approach has been included (4), in the context of the given research and planning. It includes a series of the following principles and provisions:

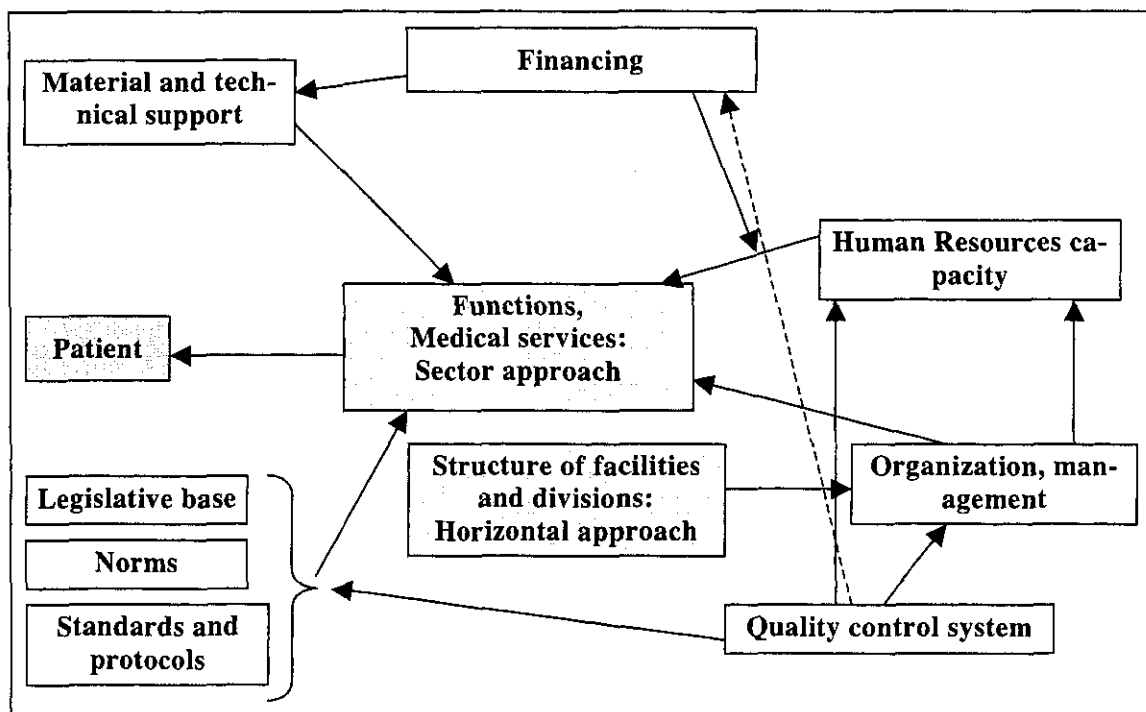
- 1) Health care system consists of sectors, institutions of health care management, medical institutions, subdivisions and medical personnel.
- 2) Components of the system, the objects, which have, own functions and features, i.e. such as elementary system units in the frame of the given research or project.
- 3) The choice on which components of this system are elementary is relatively arbitrary and in many cases depends on the consideration of the researcher. During an analysis of objects, abstraction is carried out, which allows simplification of objects to such an extent that is enough for the given analysis level.
- 4) Objects with similar functioning features and principles are united into classes (types) of objects or one-type objects.
- 5) "Complex systems often are hierarchical and consists of mutually dependent subsystems (modules) which may be divided into subsystems and etc., up to the lowest level". Hierarchical systems consist of some types of subsystems (modules) which are combined and organized in different ways".
- 6) Possibilities/ functions of the system are not equal to the simple sum of possibilities/functions of its separate elements or subsystems that is related to influence of intersystem relations.
- 7) Fundamental key elements of systems and problems are to be considered.
- 8) Emphasis on consideration of the system as a whole (holistic approach).

Classical visual appearance of the complex system is given on Fig.2.1 in the work



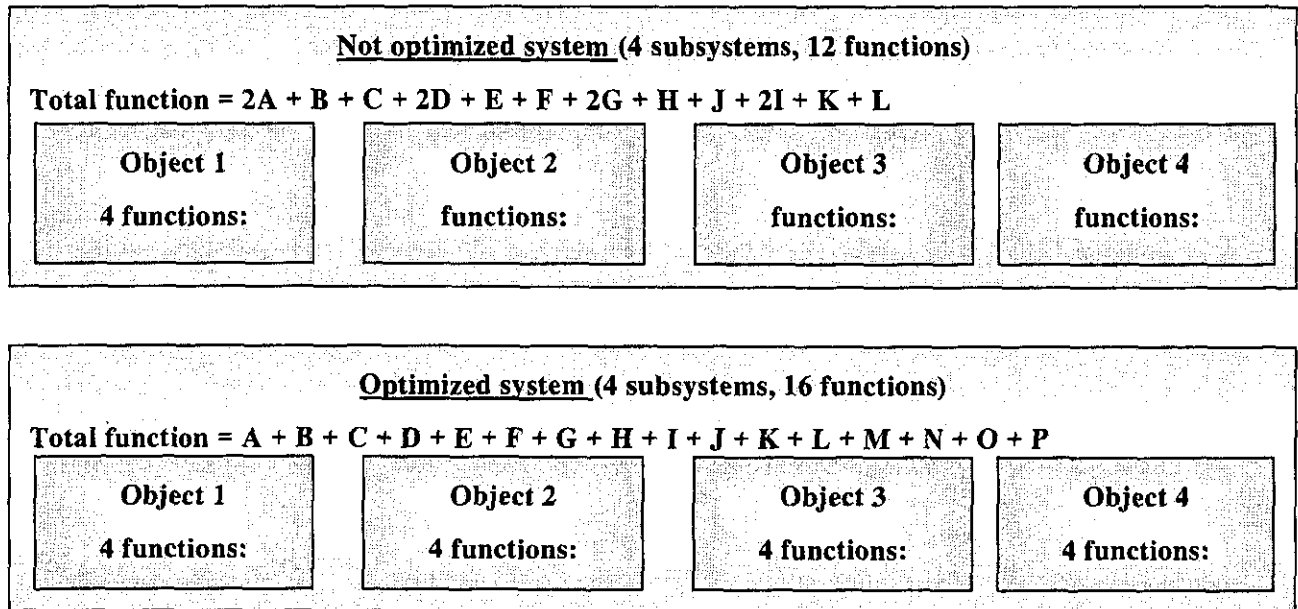
**Fig. 2.1 Canonical form of Complicated System.**

(3) **STRUCTURED-FUNCTIONAL APPROACH** is based on hierarchy of structured objects/formations-subdivisions, institutions, complexes, levels of health care, fulfilling definite functions. In Fig.2.2 the scheme of structured-functional approach to analysis and planning of the health care system is drawn.



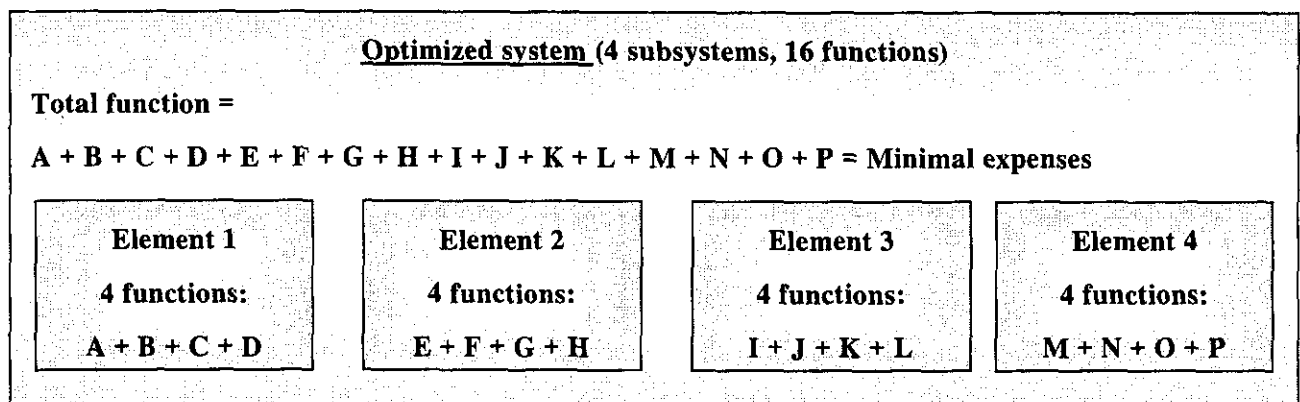
**Fig. 2.2 Logical Structure Graph of Sector-wise Functional-structural Analysis and Planning**

(4) STRUCTURED-FUNCTIONAL OPTIMIZATION APPROACH DIVIDES FUNCTIONS between structured formations when the sum of function of the separate subsystems/objects is equal to the sum of function of the whole system, and the number functions and objects do not exceed the minimum possible or necessary level (fig.2.3)

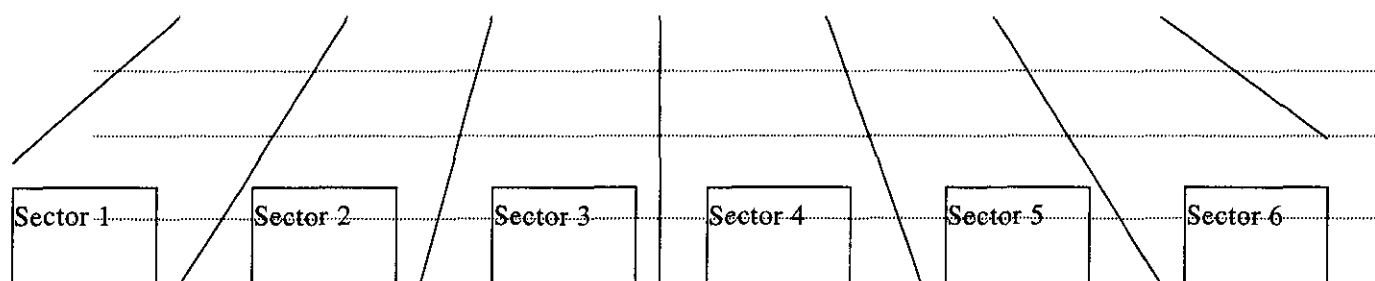


**Fig. 2.3 Principle of System Optimization**

(5) COST-EFFECTIVE APPROACH IS BASED ON ELABORATION OF A SYSTEM carried out of the certain sum of functions requiring minimum expenses for the realization (Fig. 2.4).



## (6) SECTORAL APPROACH



**Fig. 2.5 Sector Based Approach**

It is based on dividing the health care sphere into sectors (see Fig. 2.5).

This research identified the following 12 most important health care sectors for further analysis and planning:

- 1) Financing system
- 2) Human resources Potential
- 3) Quality management of medical assistance (medical technologies)
- 4) Management and informative systems in health care
- 5) Primary care
- 6) Emergency care
- 7) Specialized care
- 8) Maternity and child care
- 9) Sanitary-hygienic survey
- 10) Prophylaxis, diagnostics and treatment of infectious morbidities
- 11) The system of medicine distribution
- 12) System of delivery and maintenance of medical equipment

This division into sectors is related to the structure of health care management system, with current priorities according to the Program of reforms of this sphere, taking into account international experience and priority tasks in the context of elaboration of the General Plan.

Among the sectors, the quality management sector is not only traditional for healthcare of the country, but cuts across other sectors, for example, development sector of human

resources potential. It is considered as a sector in itself to highlight its importance in the process of reform health care in Uzbekistan.

(7) **INTERSECTORAL OR HORIZONTAL APPROACH** It is based on dividing the health care system into levels. Dividing into 3 levels is a classical method in modern health care management, hence in the present research a division has been used (Fig. 2.6)

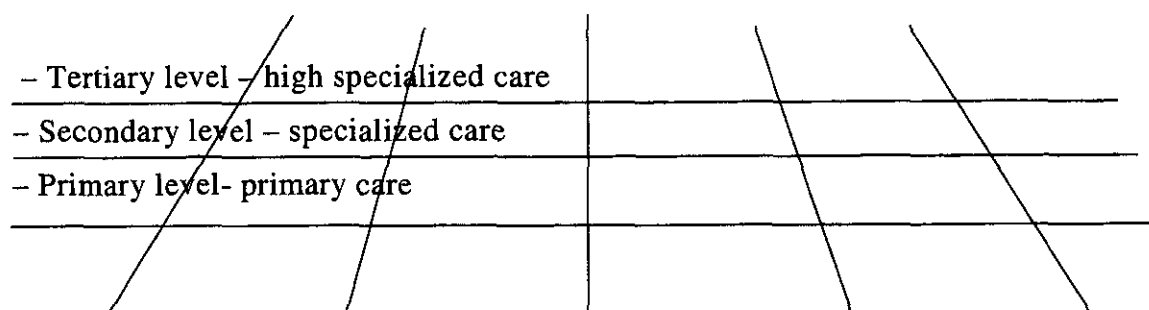


Fig. 2.6 Inter-sector or Horizontal Approach.

(8) **BREAKTHROUGH THINKING** [5, 6] LOOKS TO THE solution of the problem “from the end”, «breakthrough» into the future, step-by-step planning BASED ON the final model vision of the future system (Fig. 2.7)

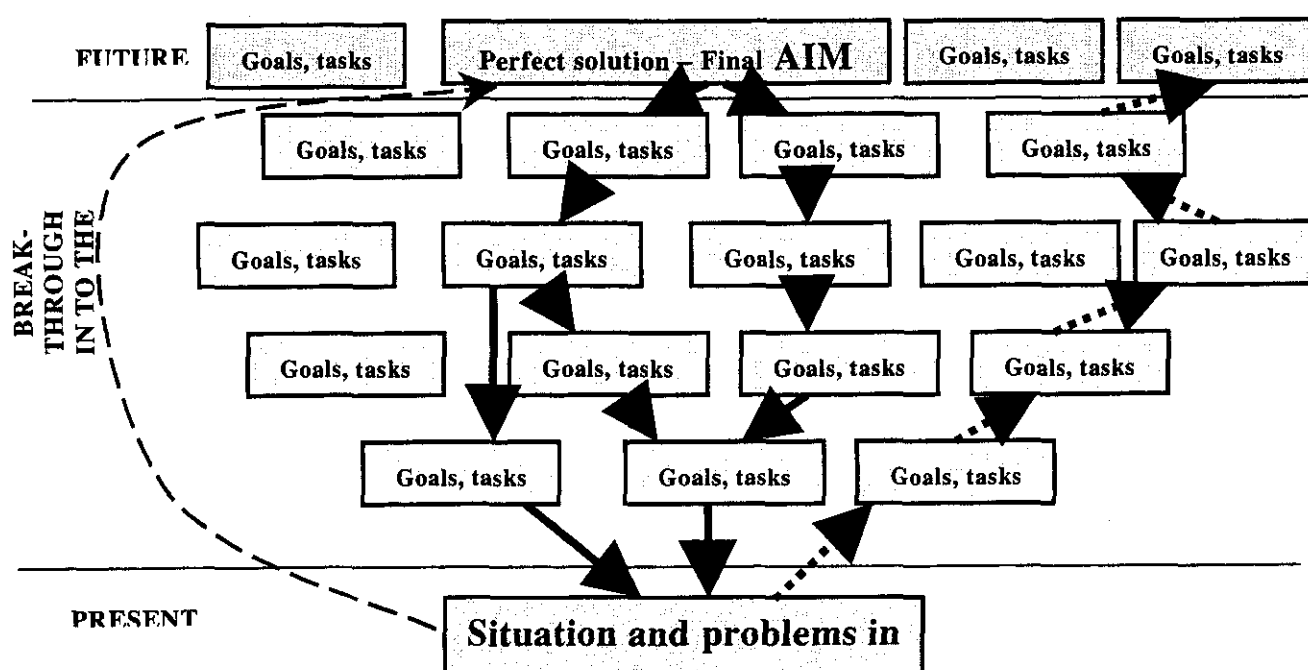


Fig. 2.7 Logical Structure Graph of Paradigm “Breakthrough Thinking”

(9) Principles of thinking paradigm of the full specter:

1) The principle of uniqueness

- Every problem is unique, even if it looks like another.
- Do not copy solutions, even if it appeared to be effective in other similar problems.

2) Purpose-oriented principle

- Concentrate on the objectives.
- Begin with the solution and continuously ask questions during elaboration process - what is the aim of solution of the problem, and what is the goal of this aim.

3) Principle of prop for the final and following solution

- Today's solutions are based on solutions of tomorrow.
- Today's solutions should satisfy the central short-term target, which leads to the further solutions and achievement of more general targets.

4) Principle of the systematic approach

- Every problem should be considered in connection with other elements of the system, other problems.
- Fundamental key elements of systems and problems should be considered.
- It should be stressed on consideration of the all system as a whole (holistic approach).

5) Principle of limit of collection of the information

- One need not study the problem itself, nor conduct deep analysis of problems, but it is necessary to study the solution of the problem.

6) Principle of constant and timely imperfections provides assurance that the solutions considered took into account its own limitations. It is necessary to make a plan of the possibilities of realizing the changes, assess its successful fulfillment in the future, and compile a program of continuous imperfections, to monitor the extent to which the solution is being supported or hampered.



7) Principle of organization through working with people

- Allows for the participation of the people which will be affected by the solution;
- One need not emphasize on the problems, and to search for guilty persons;
- One should speak about the final aims and solutions, than about problems.
- People who put solutions into the practice should be constantly and continuously involved in its elaboration.

8) Factors and characteristics of thinking of the full specter:

- definition of uniqueness of each project and a problem
- consideration of every part of the project as some problem
- widening of space of the problems
- definition of quality measures and result evaluation which are significant for the problem to be considered
- definition of optimum volume of the information which is necessary to collect
- involvement of the all interested persons into the process of solution of the problem
- attraction of specialists of different profiles
- should be set up the problem in a such manner in order to realize the conception of continuous insertion of changes into the system

9) Priorities of thinking of the full specter

- Emphasis on synthesis not analysis.
- Concentration of attention not on problems of the past but on solutions of the future
- Removal of obstacles on the way to simple solutions
- Minimum expenses of time for the collection of information, sharp decrease of expenses of time and efforts for analysis of the information
- Emphasize on what is doing but not on the matter whether is doing effectively or not
- Priorities of thinking of the full specter
- The more space of choice of the solutions
- Less probability of mistaken and non-effective solutions
- More qualitative, vital, economical and long-term solutions
- Possibility of continuous changes and imperfections
- Emphasis on realization of the solutions

- Positive methods on involvement of the persons into the work
- Demonstration of the faith but doubts may elaborate fresh solutions
- Natural creation of groups for fulfillment of the works and realization of the projects

On Fig. 2.8 graph of logical structure of stream of the thoughts in thinking of “the full specter” is drawn.

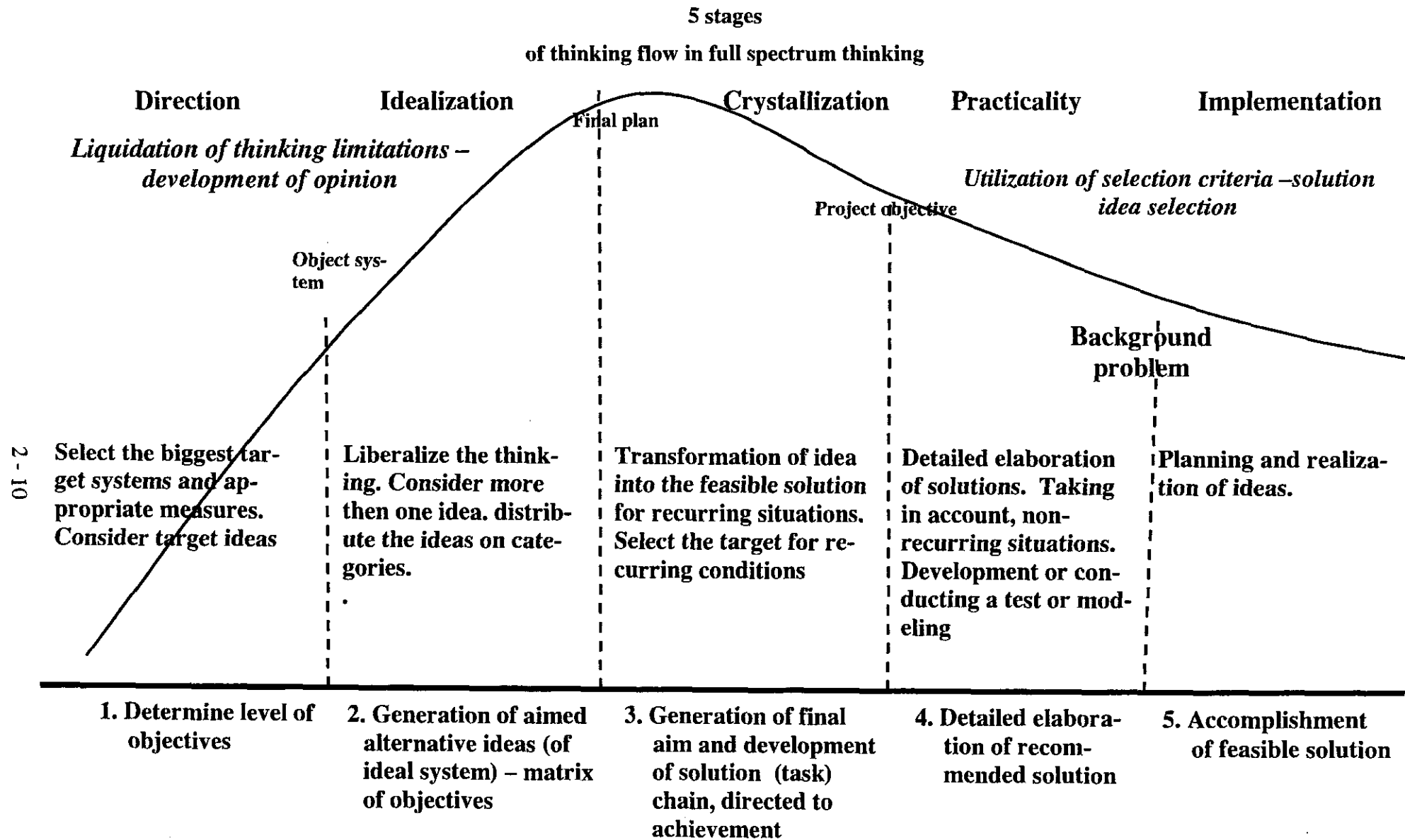


Fig. 2.8 Graph of Logical Structure of Thinking Flow in "Full Spectrum Thinking"

**Table 2.1 Planning and Constructing Levels' Characteristic**

Level	Time (years)	Characteristics
Political	<u>10-15</u>	Establishment of final objectives and tasks, recommendations regarding further activities and planning on other levels
Strategic	<u>7-10</u>	Long-term plans or direction of activities with indication of means for accomplishment of concrete task within frames of formed policy. Interim objectives and tasks.
Tactical	<u>5-7</u>	Definite plans and constructions, which stand for elements of transition and interconnection between strategic and functional constructions.
Functional	<u>3-5</u>	Detail elaborated construction, which creates prerequisites to definite actions for definite persons in definite moments.

(10) Basic purpose of planning

- 1) maximum increase of effectiveness of planned solutions
- 2) maximum increase of realizing probability of the solution implementation
- 3) maximum effectiveness of utilized resources
- 4) focus on the patient

**2.1.2 Working Groups**

To successfully apply the principle of “thinking of the full spectrum ” in the research process, 14 working groups were organized. The process involved meeting and discussing with local and international partners on issues and plans for each identified sector (see 2.1.1, (6) above) , with the addition of 2 working groups on the nursing sector and management.

Arrangement of activities of the working groups :

To coordinate the activities, 2 coordinators were designated – 1 from the Ministry of public health, 1 – from JICA research project. The chiefs of each working group came from the Ministry of Health, as moderator, and the responsible expert person from the research project JICA served in his/her capacity.

The working groups started with the general meeting in which all the participants were present (over 120). Further, each working group worked according to its own schedule and held several meetings. Main problems were discussed during meetings, “brain storming” on main ideas of reforming was conducted, intermediate and preliminary variants of final reports were discussed.

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## 2.2 Identification of Common Systemic Problems

As a result of the generalization of the analysis of different problems and the complexity of the sphere of healthcare, several common systemic problems which are common for healthcare system as a whole and for its separate sectors were revealed:

- (1) Abundance of different types of doctoral specialties, institutions, subdivisions, stages of services for patients, which significantly complicates control and management.
- (2) Big quantity of separate institutions in some territories.
- (3) Non-exact definition of healthcare level and functions of separate types of institutions in different levels of healthcare system.<sup>1</sup>
- (4) Fuzziness and indefiniteness of some functions in some institutions and subdivisions.
- (5) Doubling of functions between different sectors, institutions and subdivisions.
- (6) Insufficient and now often contradicting normative and legal bases defining the main rules of system functioning.
- (7) Big quantity of registering and reporting documentation, difficulty of analysis and “feed back” of analytical information on management, particularly in some institutions and subdivisions.
- (8) Lack of well-defined system of training of specialists on healthcare management and modern approach in management, including application of information systems.
- (9) Absence of a quality control system and management on rendering of medical services
- (10) Necessity of special approach in training and permanent medical education system taking into consideration specifications of the healthcare sphere.
- (11) Insufficiency of market mechanisms in financing system, lack of modern models of medical insurance.

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<sup>1</sup>According to Decree of the Cabinet of Ministers of the Republic of Uzbekistan № 18 dd. 14 January, 1999 «On imperfection of management in the healthcare system of the Republic of Uzbekistan», 4 levels are separated in health care system, it being known that it is exactly defined whether territorial management system of healthcare related to province or district level? According to the document the direct realization of a primary care that always conducts by ambulatory way is entrusted for the central district hospital traditionally rendering a specialized hospitalization care. The place of town polyclinics in the current system is not clear because they are not indicated in the document.

To solve these problems, a cost-effective approach and principles of structured-functional optimization is envisioned.

### **2.2.1 Basic Principles and Application of Cost Effective Approach**

- Simplification of the system, reduction of its complexity: decrease in the number of types and objects of analysis
- Centralization – enlarging of objects, creating of the multi-functioning objects.
- Decentralization – effective distribution and delegating of the functions.
- Restructuring: change of the structure of some subsystems/objects/formations
- Re-profilization: change of functions of some subsystems/objects/formations
- Diversification (expanding): of the functions of some subsystems/objects/formations

Application of Principles:

- (1) It implies decrease of quantity of the time spending by medical personnel to serve 1 patient at improvement of care quality.
- (2) It requires improvement of effectiveness in rendering of care to the patient from the side of medical personnel.
- (3) Wide usage of cost-effective multi-disciplined specialists, particularly at the level of “first contact” (family doctors, doctors of emergency care )
- (4) Effective management to correct for imperfection of financial flow in the health-care system.

### **2.2.2 Functional-Structured Analysis of the Current Health Care System**

Functional-structured optimization started within framework of the reforms, conducted by Decree of the President of the Republic of Uzbekistan № 2107 dd. 10, November 1998. So, within the frame of the project “Health”, simplification of the structure of the first level healthcare (decrease of kinds of the institutions) and the diversification of the functions (expanding of power, function, opportunities of PCI (primary care institutions) were conducted. Reforms of the system started with the rendering of emergency medical care by centralization of different kinds of institutions and subdivisions into multi-profiled departments and institutions.

Centralization entailed transferred gynecologist-obstetric care, also called women consultations, which were functioning as independent structures, into district clinics in form of the office of obstetrician-gynecologist.

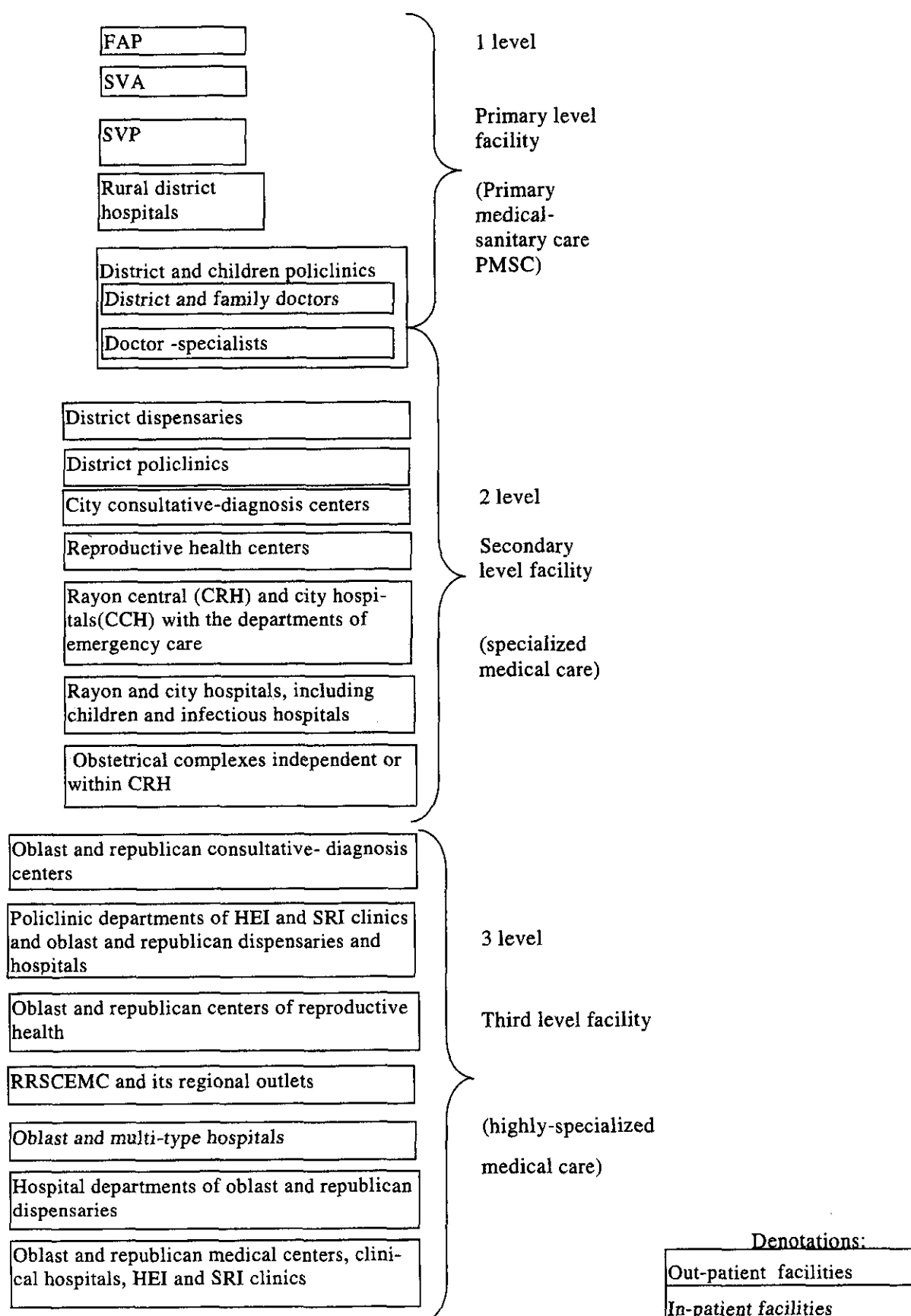
Taking into account of international experience, the administrative-territorial division of the Uzbekistan and existing structures of the healthcare institutions, for analysis and planning were divided into a 3 – level functional-structured system, with separation into the primary, second and tertiary levels. (Fig.2.9)

tertiary levels. The primary level is presented by several types of institutions. In the rural area, primary care institutions (PCI) includes Medical Assistant Ambulatory Office, Rural Physician's Ambulatory, Rural District Hospital and the new type of institution – Rural Physician's Office (SVP). In the urban area PCI is carrying out by district and children's district polyclinics, which have narrow specialists rendering specialized care at the secondary level. In the city of Tashkent as a result of the reforms, several types of facilities emerged - mixed family polyclinics staffed by physicians and maintenance personnel, narrow specialists, and the first experimental City Physician's Office (SVP).

The secondary level is presented by series of ambulatory and hospital institutions/subdivisions. Ambulatory institutions are referred city or district multi-profiled (not-district) polyclinics which function as separate institutions or polyclinic subdivisions of Central City Hospital/Central District Hospital. The system of dispensaries at the district level (usually in towns) is of 4 types: dermato-venerological, psychiatric, tuberculosis and endocrinology. These institutions are ambulatory, without beds. If in any district (usually in rural area ) an appropriate dispensary type is absent, its functions are carried out in the respective offices of the central district polyclinic.

In many towns and districts are functioning independent multi-profiled consultative-diagnostic centers. They are fulfilling functions similar to the central district and town polyclinics, but on higher diagnostic level because of better equipment.





**Fig. 2.9 The Structure of Medical Facilities Today**

Ambulatory institutions include centers of reproductive health which were created during recent years and are instructed with the functions of study of the population to skills of family planning, consultative-methodical and organizational care for obstetrician-gynecologists and physicians and maintenance Personnel (PMP) of primary level on matters of reproductive health.

Hospital institutions at the district levels are presented in by the central district (Central District Hospital) and city (Central City Hospital) multi-profile hospitals. Capacity of these institutions varies from 100-300 beds, depending on the territory and population to be served. These institutions in the districts add to the network of specialized hospitals, among the most common include, the children's and infectious hospitals. This completes the network of childbirth-providing institutions of Central District Hospital/Central City Hospital and/or independent childbirth providing institutions.

Tertiary level is of 2 types: provincial or regional and republican. During consideration of organization from position of structured-functional analysis of specialized care these 2 sublevels should be considered independently. Nowadays, the republican level conforms to the meaning "highly specialized". A level of the medical care in institutions of province level should be considered as a specialized, but not highly specialized.

Which level of care should be rendered at the provincial/regional level in future? If it follows the concept of emergency care according to Decree of the President of the Republic of Uzbekistan №2107 dd. 1998, at province level an emergency care the same by quality and volume as in the Republican Scientific Center of Emergency Medical Care (RSC of EMC) should be rendered. Accordingly, it is logical to view specialized medicine, given the quality and volume of medical services rendering to the population the province and republican sublevels, in perspective, as practically identified and considered at the level of tertiary high-specialized care.

From these considerations, that for the purpose of supply of succession in the following stages of reform, republican and province levels shall be considered as one level of tertiary high-specialized medical care, with two sublevels-republican and regional.

At present, highly-specialized care is carried out by ambulatory and hospital institutions. Here, it is necessary to state an extra care of specialized level which is represented by the Republican Scientific Center of Emergency Medical Care (RSC EMC) and its regional (province) branches. These are more modern and well-equipped hospital institutions having highly-qualified personnel.

In every province center province hospital, provincial hospital institutions are also available. Usually specialized hospitals and hospital subdivisions of provincial dispensa-

ries. In some biggest province centers when are high medical educational institutions are available, there exist clinics of high medical educational institutions also.

If one should separate province and republican childbirth-providing institutions as hospital types, there are province maternity complexes, R&D Center of obstetrics and gynecology, as well ambulatory type- province and republican centers of reproductive health medical institutions identified as scientific-clinical type –research & development institutes on separate spheres of medicine, a whole gamut of study institutions on arrangement of physicians and medical nurses having their own clinical bases are functioning at the republican level as well.

The Decree of the President of the Republic of Uzbekistan “On measures of further reforming of the healthcare system” has been issued on the 26<sup>th</sup> of February, according to which as an experiment on the base of functioning clinical centers 4 republican specialized centers, i.e. surgery, urology, cardiology and microsurgery of eye will be organized. These centers should carry out a role leading institutions on the proper spheres of medicine and promote the implementation of new treatment-diagnostic technologies with corresponding institutions/subdivisions of the regional level.

In the accordance with the spirit of the above-mentioned Decree the development strategy of specialized care on the republican level for other spheres, development conception of specialized care on regional and district levels would be elaborated.

### **2.2.3 Some Ways of Solutions to the Problems on Base of Principles of the Structured-Functional Optimization**

The general plan of reforming of health care has strategic importance and embraces the period of 10 years. Taking into account that the reform processes in the healthcare sphere of Uzbekistan are conducted continuously, this temporary period will be enlarged for 5 years with purpose of supply of succession with the following stages of reforming. In Table 2.2, the temporary approach is offered, i.e. stages of reform by periods, and the common characteristic of every stage is given.

**Table 2.2 Stage-wise Approach to Reform Healthcare System of Uzbekistan  
for the Duration of 2005-2020**

Stage	№	Years	Main objectives, tasks of stage
Preliminary, preparative	I.	2004-2005	Conduct inter-institutional changes within the system of MOH, which may be fulfilled fast and without particular expenses. Finalization of activities regarding reforming of previous stage.
Initial	II.	2006-2007	Creation of initial interim models of Health system structure and functioning, which allow direct transition to current system.
Interim	III.	2008-2011	Creation of interim models of Health system structure and functioning, making real prerequisites for subsequent transition to base models.
Base	IV.	2012-2015	Introduction of institutional and infrastructural changes in Healthcare system, ensuring realization of basic objectives and tasks of reforming.
Perspective	V.	2016-2020	Development of conditions and prerequisites for transition to future organization perspective forms and Healthcare system functioning in Uzbekistan.

The ultimate purpose from the optimization point of view is the continuation of the reforms started in 1998, through the deepening of restructuring processes, centralization of institutions, diversification of functions, widening as sectoral as well inter-sectoral approach, and the geographic spread of territories as the reform process proceeds.

An important step from the intersectoral approach is the elaboration of the concept of every level of healthcare with clear definition of functional tasks and types of institutions of healthcare, defined within a an understanding of a conceptual frame. For these functions and order of functioning of these institutions would be elaborated.

**(1) Optimization of functions (elimination of doubling) of different sectors, sub-systems, institutions and subdivisions:**

- *Primary care (PC)* – Rural Physician’s Office (Rural Physician’s Ambulatory in some districts), city polyclinics with City Physician’s Office (CPhO);
- *Specialized care*: on district level (second link) – district polyclinics and consultative-diagnostic centers, central district and city hospitals;
- *Specialized level* on provincial level (tertiary link) – provincial consultative-diagnostical centers and provincial hospitals of emergency and specialized medical care;
- *Specialized care* on republican level (tertiary link ) – republican specialized medical centers;
- *Vaccination*: gradual transition of all functions on planning and conduction of vaccination in PC, supply of institutions of PC by vaccines- “Dori-darmon”

SShC, control – on management of the Ministry of healthcare and province health care bodies controlling PC;

- *Prophylactic works*: primary and second medical prophylaxis after PC, tertiary prophylaxis- PC and second link;
- *Promotion of healthy life style, study of population* – institute, province and “Health” district centers;

*Sanitary-epidemiological supervision* -- SSES service;

A norm for specialist care at the district level should be based on the level of morbidity, and a formula that takes into account the primary morbidity and sickness of population.

Main tasks of specialist at the district level on the state budget:

- diagnostics and treatment of more often appearing morbidities under untypical varieties of course on referrals of PC physicians until the next level;
- diagnostics and treatment of more rare cases and morbidities by referrals of PC physicians till the next level of referral;
- diagnostics and treatment of extra states (on rules for extra states);
- tertiary prophylaxis of the patient referred by PC physicians;
- specialized rehabilitation for individual contingents of the patients;
- consultative and organizational-methodical assistance (curative) to physicians of the primary link.

*Specialized care*: on district level (*second link*)–

- on first stage district specialists are not admitting patients without payment without referrals by PC institutions.
- On second stage referrals from PC physicians to district specialists restricted by quantity per month, to combine this stage with implementation of by-person financing and transition to independence of primary institutions.
- On third stage according to development of PC and implementation of by-person financing with transition to independence of PC institutions is transition to partial fund-holding – payment of consultative works of specialists from the special funds of PC institutions.

Main tasks of specialists of district link who is working on self-financing:

- Diagnostics and treatment of profile morbidities without referrals;

*Specialized care*: on district level (tertiary link):

Main tasks of specialists of republican and province link (basic package):

- Treatment of common morbidities under untypical varieties of course due to referrals by district specialists;
- Treatment of more rare states and morbidities due to referrals of district specialists;
- Consultative and organizational-methodical care (curative) of district specialists;
- Analysis of sickness and effectiveness of specialized care

A norm for specialists at province level will be the quantity of population.

Hence, financing of specialists at the district level is linked to sickness level and at the provincial level, by per capita principle to allow for the optimization of financing at specialized levels through gradation principle of filling gaps from lower levels to higher levels.

Tasks of specialist of the republican level:

A normative for specialists of the republican level would be a calculation based on

- sickness level;
- quantity of specialists in the given service;
- volume of curative works ;

*Collection and primary analysis of medical-statistic information* on the all levels– chiefs of subdivisions, district medical statistics, province Bureau of medical statistics, Republican Information and Analytical Center (RIAC);

*Critical analysis of medical-statistical information* on healthcare sectors- respective Departments and main specialists of the Ministry of Healthcare and province healthcare bodies, subdivisions, R&D Institutes and republican specialized scientific centers;

## **(2) Simplification of the system**

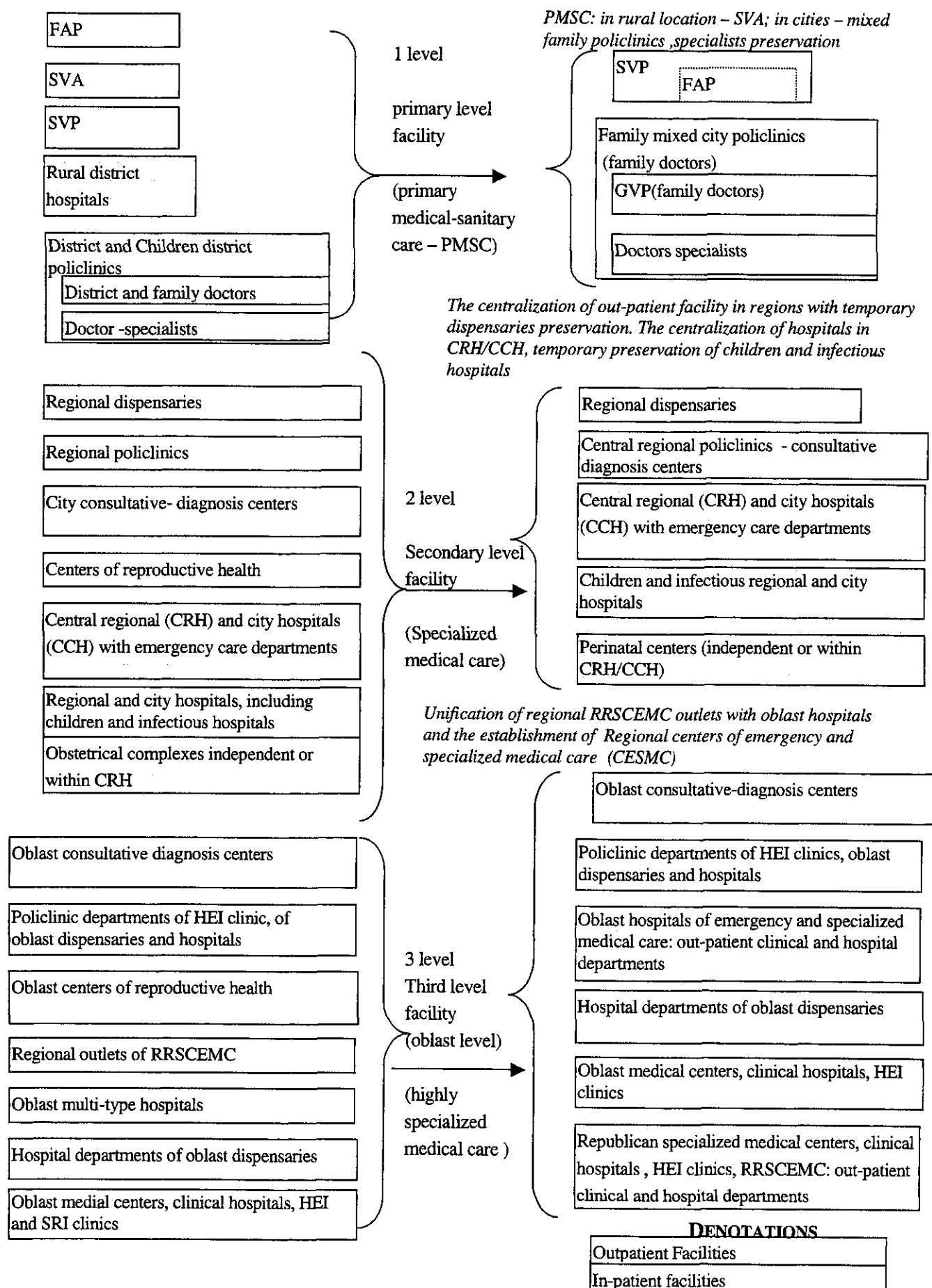
- decrease of number of types of the institutions in the healthcare system
- Decrease of stages of patients care
- Implementation of new universal physicians – family physicians and physicians of emergency care
- Decrease or stabilization of number of the narrow specialties on district level

**(3) Centralization and enlargement of individual institutions of district and province levels**

Centralization of hospital care on district level in the one district hospital

- Centralization of ambulatory specialized care in the central district polyclinic under Central District Hospital or Central City Hospital.
- Centralization of hospital care in the province centers in one or some big medical centers
- Centralization of ambulatory and hospital subdivisions of hospitals and clinics into the complex ambulatory-hospital subdivisions

Two-stage transition to optimized healthcare system is offered. The first stage embraced an initial (2005-2007 years) and intermediary (2008-2011) stages of reforming (Fig. 2.10). The first stage is offered to conduct a partial decentralization, and by this, to divide the primary and second level of healthcare.



**Fig. 2.10 First Stage of Restructuring**



Fig. 2.10 shows 1<sup>st</sup> stage of restructuring: the structure of medical facilities today (on the left) into primary (2005-2007yrs.) and intermediate (2008-2011) periods of reformation (on the right): centralization of facilities, the diversification of functions of newly-established facilities.

Primary care in rural area will be provided mainly by SVP, in far and few occupied single MAAO will stay and SUBs as institutions would be liquidated. On that, the structural reconstruction of primary care in rural area will come to end. In urban areas, all polyclinics shall be family and combined, i.e. children's and adults district polyclinics will be unified and family physicians worked there. Narrow specialists during this period will stay in these combined family polyclinics. Besides that, CPhO will be created as branches of combined family polyclinics, they are maximally be close to population. A model of organization is functioning in Tashkent city already, where are first experimental CPhO have been appeared.

The second stage, in Fig.2.11, includes intermediary (2008-2011 years) and basic periods (2012-2015 years). Primary care in urban will be rendered from the side of family polyclinics in which specialists would be absent (all of them will be included in staff of the central district polyclinic). These family polyclinics will not be polyclinics in true sense of this word, but it would be appropriate to call them group family practitioners. They can establish their offices in makhallas in kind of separate offices of physicians called as city physician's office (CPhO). CPhO will differ of the group practice first of all with absence of laboratory-analyses are to be carried out in practice only.

Second level – specialized care on district level, will also have two stages. On first stage in the same Fig.2.10, centralization of ambulatory institutions will begin in the central district polyclinic, which acquired functions of district consultative-diagnostics center. All ambulatory institutions besides of district dispensaries will be included into composition of central district polyclinics. This process will be fulfilled analogous and symmetrical in rural and urban area. The hospital care on this stage will not have significant changes, but it is necessary to complete the full-fledged transition to universal departments of extra medical care.

On second stage in Figure 2.11, dispensaries should be included into composition of central district polyclinics, after which they will be full-fledged district consultative-diagnostic centers or part of the CRH/CCH.

Centralization of institutions and subdivisions require not only keeping the previous volume of functions but also diversification (widening) of volume of functions that

would be possible due to rationalization of the structure and optimization of carrying out functions.

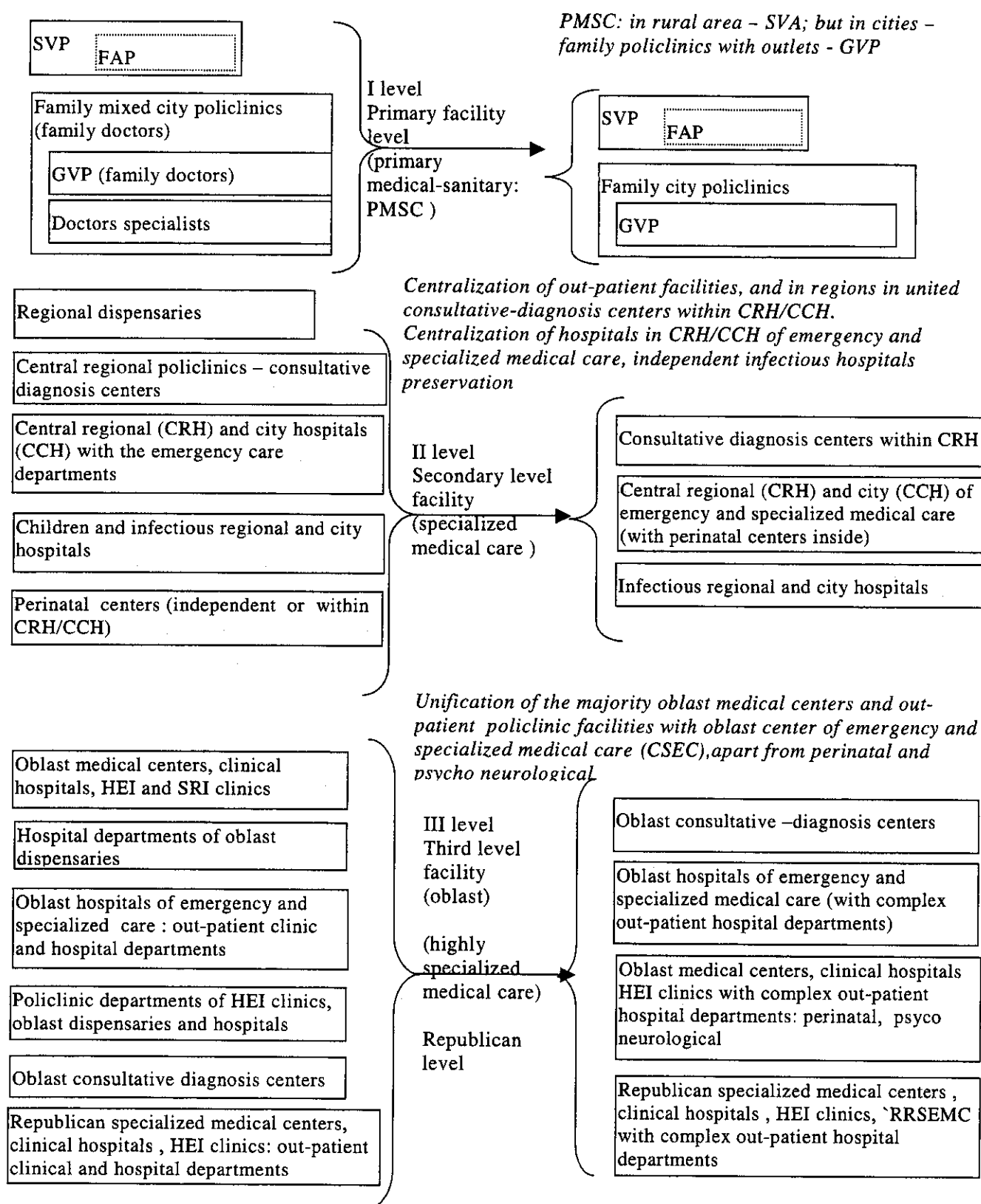


Fig. 2.11 Second Stage of Restructuring

Fig 2.11 shows II stage of restructuring : the structure of medical facilities during the starting (2005-2007 yrs.) and intermediate (2008-2011) periods of reformation (on the left) and during the intermediate (2008-2011) and basic (2012-2015) periods (on the right): centralization of facilities, the diversification of newly established facilities' functions

On second stage (Fig. 11) dispensaries should be included in the composition of central district polyclinics after which they will be full-fledged district consultative-diagnostics centers as part of CDH/CCH.

Centralization of institutions and subdivisions requires not just keeping the previous volume of functions only also diversification (widening) of the volume of the functions that would be possible due to *rationalization* of the structure and optimization of carrying out functions;

For the present time, in the frame of "Health" project, the *simplification* of primary care structure (PC) structure is a kind of *centralization* in rural primary care organization (RPHC), touched the rural areas only, diversification of their functions really happened in experimental spheres and districts only. *Reforms of this kind of centralization of institutions may have negative results.* However, on preliminary and initial stages of reforms it would be necessary to enlarge frames of Health project as in diversification plan of PC institutions as well in territorial aspect as soon as possible, i.e. distribute a positive experience for all territories of the country.

**(4) Decentralization and diversification of the functions:**

- decentralization of the functions of the staff "physician-medical nurse", widening of competence of medical nurses;
- decentralization of management functions in institutions, enlargement of competence of subdivisions;
- decentralization of management functions and financing on district level – from CDH in RPhO till CCH in family polyclinics,
- *diversification of the functions, enlargement of competence of PC institutions;*
- decentralization of order and delivery system of medicines under keeping and strengthening of state quality control system of medicines;
- decentralization and diversification of order, delivery system, maintenance of medical equipment

**(5) Elaboration of staff norms for medical personnel and financing norms for district, regional and republican levels.**

- elaboration of staff norms for medical personnel and financing of PC institutions on base of by-person principle;
- elaboration of staff norms of medical personnel and financing of institutions of the district level due to the quantity of morbidities cases which is based on the quantity of population to be served and level of its sickness and morbidity;
- elaboration of staff norms of medical personnel and financing of institutions of tertiary level due to the quality/spectrum of services to be presented and volume of services to be realized;

**(6) Optimization of functions of the medical personnel, subdivisions and institutions :**

- implementation of new physicians' and medical nurses' specialties: public health medical practice (PhMP), medical nurse of common physician practice, family physician, family medical nurse; physician of emergency care, medical nurse of extra care;
- clear separation of different functions on primary and second prophylaxis (prophylaxis works, dispensaries) between PC personnel, state sanitary-epidemiological supervision service and "Health" centers
- reduction of the function of specialists at the second level on prophylaxis up to tertiary prophylaxis (elimination of function of the primary and second prophylaxis)
- diversification (widening) of functions of medical personnel of the centralized and restructured institutions as by quality as well by the volume;

**(7) Creation of multilevel control and quality management system of medical care**

- implementation of licensing system of physicians;
- Implementation of accreditation system of the medical institutions;
- Creation under the Ministry of Health care, Department of Economy, scientific-expert and working groups on elaboration and monitoring of normative for medical personnel, package of medical services, normative and legal base, on elaboration and approval of clinical guidelines standards and protocols, etc.; financing

of the group for expense of the state order, scientific grants, grants of international organizations; attraction of public organizations to their activity;

- Conveyance of competence on the distribution of state grants for scientific researches in medicine are in the Commission on science and technique under the Cabinet of Minister to Department of economy of the Ministry of Healthcare taking into account of special statute and social importance of healthcare sphere;
- Re-direction of medical scientific researches towards practice issues, with priority on elaboration of staff normative, package of medical services, clinical guidelines, standards and protocols for different types of institutions and different levels of healthcare;
- Creation of the evaluation and management system of medical services in the treatment-prophylactic institutions;
- Creation under Physician's Certification Commission (PCC) of new scientific specialties according to priority directions of reforms of health care system: "common physician practice and family medicine", "extra medicine (?)", "medical prophylaxis and valeology (?)", "informative, scientific, study technologies in health care", "management and economics of health care", "medical nurse business".

**(8) Modernization of personnel arrangement system and continuous medical education**

- optimization of the arrangement system of medical nurses; creation of two-staged arrangement system of medical nurses- first stage – lyceums for medical nurses, second stage – medical colleges- 3 years
- development of institute for medical nurses of high qualification- medical assistants, addition of 2 years in medical institutes on special faculties of medical higher education institutes after the medical college, for the working medical assistants – 1 year;
- creation of 3-level arrangement system of physicians: I stage – bachelors 4 years, II – stage internship – 2 years + internship 1 year; III – stage – residency (1year) or master degree (2 years).
- Development of the post diploma education system and continuing medical education: creation of the institute for mentoring and training, creation of the regional branches of institute for imperfection (?) of physicians, development of remote education.

**(9) Optimization of management system and management in the context of optimization of healthcare system.**

- Abolition of duplicate functions of different branches of the Ministry of healthcare (MOH) and provincial or regional health care bodies (PRHB) to optimize functions of the system as a whole;
- Optimization of structures of MOH and provincial or regional health care bodies according to directions of reforms: creation of the sections on prophylactic and promotion of healthy lifestyle, emergency and specialized medical care within the Department of treatment and prophylactic care in primary care facilities;
- creation of the monitoring systems (sections), both vertical (by sectors), and horizontal intersectoral, under the MOH and province healthcare bodies on fulfillment of orders of the Ministry of Healthcare and PRHB;
- creation of section (center) of the monitoring and interaction with international and non-governmental organizations under the MOH and PRHB;
- together with the Ministry of Finance, provide an approval order of staff norms for the medical personnel and package of services to be rendered on the permanent basis
- creation of modern training system and constant education of managers and top-managers of the healthcare system;
- elaboration, optimization and monitoring of the normative and legal base of healthcare

**(10) Implementation of modern informative systems of healthcare (ISH).**

Modernization of revolution of the medical documentation: decrease the numbers of forms and optimization of primary registration medical documentation, optimization of statistical records and reporting documentation.

With purpose of standardization to provide on permanent basis an approval order of new account forms in the MOH, new forms of state reporting jointly with the MOH and State Committee on statistics, new reporting forms of healthcare institutions in provincial or regional healthcare bodies (PRHB);

- on level of the Uzbek Parliament and the Cabinet of Ministers to oblige all institutions, despite the forms of the property to submit unified state reporting forms on morbidities to bodies of State committee for statistics and Ministry of

on morbidities to bodies of State committee for statistics and Ministry of healthcare;

- elaboration of the computer software for informative healthcare systems according to existing primary registration of the medical documentation;
- Stage-by-stage implementation of computer software and techniques on ISH (?) for institutions of healthcare;
- Creation of a network of centers on informative – computing technologies on district and republican level as the branches of district and regional services of medical statistics;
- Creation of a modern teaching system of skills on work with computer and application of ISH in practical activities for the working physicians and medical nurses, students of medical colleges and medical institutes also;
- Creation of a system to train managers and chiefs of healthcare facilities on skills of application of medical statistics information in their practical activities;

**(11) Diversification of the property forms and financing models in healthcare sphere.**

Stage-by-stage implementation of the insurance system, including voluntary and obligatory;

- widening of financing sources in healthcare system and increase of public expenses for healthcare at 0.5% annually leading up it to 2007 year till 4,5-5,5% of GNP;
- Transition from financing of institutions into financing of the functions;
- Implementation of different financing models on different levels of healthcare with different financing sources:
  - o By-person financing of PC's basic package for expense of funds of the state budget and obligatory medical insurance;
  - o Financing of basic package of emergency medical care in ambulatory-polyclinic institutions and on district level by-person principle, on province and republican levels due to volume of services to be rendered and category of the institution-supplier of medical services for expense of the state budget and obligatory medical insurance;
  - o Financing of basic package of specialized medical care of II-level at district level due to quantity of new sick and chronic patients throughout the prov-

ince charged against funds of the state budget and obligatory medical insurance;

- Financing of basic package of specialized medical care of III-level at province and republican levels due to volume of services to be rendered and category of the institution-supplier of medical services chargeable against funds of the state budget and obligatory medical insurance;
- Additional financing of healthcare services charged against voluntary medical insurance and so-payment from citizens;
- By-person financing of state budget funds for the basic package to state sanitary-epidemiological supervision system (SSES) and promotion of healthy lifestyle ("Health" institute and centers);
- widening of SSES services and "health" institute/centers funding from non-budget sources (training of sanitary, hygiene and healthy lifestyle skills to specialists and population; penalties for violation of the sanitary-epidemiological regime of institutions and enterprises; rendering of other additional services to the population on own profile)
- Financing of management system, medical statistics and ISH used for basic package system against state budget.

**(12) Buy-in of international organizations to identified state priorities:**

- Support and participation in measures on restructuring of health care system and optimization of functions of the institutions and medical personnel;
- Support and participation in measures on evaluation and monitoring of the current situation in healthcare;
- Support and participation in elaboration of basic package of the services and implementation of the new financing models, including development of insurance medicine;
- Support and participation in elaboration of staff norms for the medical personnel;
- Support and participation in creation of the modern improvement system and quality management of medical services;
- Support and participation in elaboration of clinical guidelines, protocols and standards;
- Support and participation in measures on modernization and development of personnel arrangement system and continuing medical education, on implementation of the new teaching technologies;



- Support and participation in measures on restructuring of management system and creation of modern management system, including financial management;
- Support and participation in measures of development of the medical documentation and informative systems of healthcare (ISH);
- Support and participation in measures on development of public healthcare – SSES service, “Health” institute/centers, development of health care on the community level;
- Support and participation in measures on the maternity and childhood care;
- Support and participation in measures of the primary health care development;
- Support and participation in measures on development of the emergency care

### **2.3 Medical Services’ Quality Control System: Condition and Problems**

At present there is no explicit system of medical services’ quality control, although some elements are present in the system.

#### **2.3.1 The System of Medical Personnel Attestation and Accreditation of Medical-Preventive Facilities**

There has long been a system of doctors attestation or qualifying examinations in the healthcare system. There are 3 doctor categories – 2<sup>nd</sup>, 1<sup>st</sup> and supreme ( in increasing order) and 2 nurses’ categories. In order to pass the attestation a doctor has to have working experience on the specialty being attested, a positive recommendation from the workplace, and pass the examination. At the same time, starting from 2001 in order to pass the attestation, a doctor has to attend 288 academic hours or other forms of training during 5 years.

Until recently, the attestations of doctors were conducted by oblzdravs and the MOH and the attestation of nurses by the facilities management, together with local bodies of healthcare management. At present, in accordance with the order of MOH #113 dated 12.03.2003, the attestation of doctors, pharmacists with higher education, middle medical and pharmaceutical staff was assigned to the Republican Center of Licensing and Attestation (RCLA). This center belongs to the system of the MOH; although functioning on self-financing basis. In perspective, it is suggested that the center will be independent.

The attestation of doctors is not compulsory for doctors. It is mainly carried out for the doctors of state-owned medical facilities. The staff of departmental medical facilities, doctors in private practice rarely comply.

The system of medical workers licensing does not yet exist. A diploma possession entitles the person to work as a doctor for life, irrespective of the experience. The creation of a licensing system has started and is currently under serious consideration and review by the RCLA.

The system of accreditation of medical-preventive facilities is non-existent and this issue is now on the primary stage of discussion.

### **2.3.2 The Clinical Manuals, Standards, Protocols**

A great number of methodical manuals, textbooks and monographs were developed in the healthcare system of Uzbekistan. The medical literature written in Russian was and is actively used. Some of them were reflected in some MOH orders, some of them were approved by the Medical Scientific Council of MOH. For the application of new elaborations in practice, then this process, except the above-mentioned MOH orders, was carried out on the basis of individual initiative and depended mainly on a doctor and the director of a facility/department.

As a whole for the healthcare sector there is no uniform system of development, consideration, approval and introduction of standards, although many elements exist and are used in practice. The so-called "Polypragmasia" (polypharmacy) or the system of excessive prescriptions whereby a patient is prescribed from 6-10 types of drugs at a time, is widespread and typical. At the same time, in a majority of cases there are no proof of the prescription's usefulness. Doctors' reasoning is more of theoretical. Quite often doctors do not realize the possibility of side-effects of such prescriptions. A case in point is the widespread practice is of prescribing drugs in the form of intramuscular injections or even intravenous drip-feed, despite the availability of effective tablet drugs in pharmacies. In recent years, with appearance of a number of pharmaceutical companies' representative offices, there is increasing tendency to prescribe more expensive drugs, although there are cheaper and rather effective analogues.

Another serious problem is the absence or unavailability of modern medical literature for the majority of practicing doctors and accordingly the absence of new modern approaches to a number of disease medication.

The first attempt to develop the standards was the experience of RRCEM (Republic Research Center for Emergency Medicine), when in 1998-1999 the standards of diagnosis and treatment of emergency conditions were developed. So far RRCEM has already the 3<sup>rd</sup> version of these standards. The collection of standards on emergency care provision for the "03" service staff has been published. The standards on obstetrics and gynecology, on pediatrics and on a number of other specialized fields of medicine have also been published. There is increasing application and introduction of these standards into practice, however the further development of standards is necessary, with the aim of their wider conformity with international experience, as well as their wider conformity with the real conditions of practice.

We can note some medical centers, where there has been the positive experience of quality management and application of manuals and protocols. The Republican Specialized Center of Urology not only applies the modern methods of high-tech medicine, but also pays great attention to the standards development for the past years. On all stages of observation and treatment in the center, the standards approved by the scientific council and center management are applied and the computer chain is used for purposes of information exchange about patients in various departments.

An interesting experience of quality management has been developed and applied in the Republican Specialized Center "Eye Microsurgery". Similarly, the standards of observation and treatment of different patient categories are observed and, a special commission on treatment results has been set up. Each patient before he is discharged, undergoes the observation by this commission and the doctor in charge of the case is given points for the final result of treatment. The application of this system in recent years by the center has led it to become the leader in the country on this field of medicine, despite the fact there are a number of competitors: state-owned and private ophthalmology centers.

It can be noted that generally the process of manuals, standards and protocols has been initiated and is proceeding gradually, often spontaneously, with no uniform approach.

There is no single coordinating center, and the system of ordering, approbation and introduction of manuals, standards and protocols into clinical practice is not developed.

### **2.3.3 The Science of Medicine**

Medical science has a long and active tradition in the country. It can be seen in the number of doctors (several hundreds) and candidates (several thousands) of medical sciences. The traditional for post-Soviet countries system of scientific- pedagogical specialists training is being used in the country, that includes corresponding and attendant forms of training and dissertation defense.

This process is motivated mainly by the career structure, as the majority of managers in healthcare facilities, especially in big cities, as well in the healthcare management system, are selected from workers with doctor's or candidate's degree. The population, in choosing the doctor in charge of their cases, prefers to be treated by the doctor with a scientific degree. It should be mentioned that there is no other sphere in a country's economy as healthcare where there are so many highly- qualified human resources.

Scientific researches are approved in scientific councils of leading centers and institutes, defended in several specialized councils organized by Higher Attestation Committee (HAC). Final conferring of scientific ranks and degrees are conducted by HAC. This system of multi-phase expertise is generally defensible because it is directed towards the support of an important level of scientific researches. However, there are several censorious remarks concerning medical workers on the quality of scientific and dissertation works. Though scientific works in their majority in medicine possess an applied character, however, most of works have theoretical character. Certain reason for this is the fact, that most of scientific works in medicine require application of special methods of research, control and diagnostics, which can be developed and applied only in special scientific laboratories. Human and scientific resources of these laboratories are supported by their conduct of similar fundamental researches. It should be also stated, that most of applied scientific researches do not possess wide introduction and are used only in the facility from which it originated.

The scientific sphere widely uses the system of tutorship, when scientific consultants and leaders train young scientists in the ways of conducting the research. However,

these tutors have no special motivation. There are no special courses that could train candidates for proper planning, conduction, analysis of scientific works in medicine, and the level of training of young scientific resources mainly depends on scientific tutor. One of the problems of scientific researches is also the limited access to scientific medical information, including on Internet, due to the absence of financial opportunities and low level of English language.

The system of financing of scientific works in medicine is similar to other spheres of science. Government assigns funds for science, which are allocated through the special committee on science and technology. The Committee provides funds through scientific grants. Applications for grants are considered by the committee on separate spheres; particularly, a separate group is created for medical sciences with the involvement of several well-known medical scientists. Yet it cannot be stated, that all scientific themes that won grants are critically important for clinical practice and improvement of quality of medical care. The ways they were conducted before, as well as the lack of experience and traditions of modern scientific approaches, constraints scientific research in the country.

There are 3 main problems to be highlighted on medical science: a) the lack of financial means for scientific researches; 2) Inefficient use of assigned funds from the point of view of clinical practice; and 3) Ineffective system of planning and allocation of the assigned funds. An important positive consideration is the availability of a large number of high-qualified scientific and pedagogical resources in the field of healthcare that can be used more efficiently.

#### **2.3.4 System of Medical Care Quality Management – Ways and Stages of Reforms**

The guiding principle of the development of system quality management should be *an effective utilization of existing personnel, organizational, resource and material potential of medical science and its direction towards solution of real and actual problems of medical practice.*

Against the main background and condition of creating modern and efficient system of quality management is the availability of strong human resources of medical science. It is necessary to evaluate and recognize that today the country does not have the neces-

sary financial resources for the development of fundamental medical science and the whole accent of medical science should be directed towards practical and applied spheres.

Presently there is a certain paradox that in having a large number of scientific workers the practice of healthcare in the country today faces a serious lack in scientific approaches towards several constraints as follows:

- Development of clinical guidelines, protocols and standards;
- Development and optimization of standard and legislative basis of the healthcare.
- Development of staff norms for medical personnel as well as norms of financing;
- Optimization of medical staff functions at different levels of the healthcare;

This paradox is understood in the way that traditional point of view to medical science was in the development of new methods of diagnostics and treatment. The development and optimization of standard and legislative basis, optimization of functions of medical workers, development of clinical protocols was not yet considered as a subject of scientific research. This tradition should be changed.

In the context of the above-mentioned, medical science requires further development, because: 1) only the development of medical science can provide availability of required number of high-qualified scientific and pedagogical resources rendering quality pre- and post-diploma training of medical staff; and, 2) the establishment of modern system of optimal utilization of healthcare resources is possible only under availability of high-qualified scientific personnel.

The healthcare management system at present possesses necessary organizational resources for such reforms, as represented by Medical Scientific Council (MSC) and several scientific councils under the leading medical centers. It is necessary to increase the role of MSC in planning and medical science financing. Thus, it seems rational, taking into consideration social importance and specific particularities of the sphere of healthcare, especially at the stage of reforms, to hand over the authorization on allocation of grant funds assigned by the government for medical science to MSC of the Ministry of Health.

MSC of the Ministry of Health should revise the policy of grant applications consideration. Taking into consideration, that on majority of clinical problems in the world there are a sufficient number of scientific developments, and the priorities should be transferred from the development of new methods of diagnostics, prevention and treatment to the development of the optimization of utilization of healthcare resources. Special emphasis should be made towards the development of clinical guidelines, protocols and standards.

Another important issue is the establishment of temporary creative groups, analytical and other working groups, public councils under the supervision of MSC of the Ministry of Health, together with related Departments of the Ministry of Health. These groups should undertake scientific monitoring, analysis and development of several actual constraints of organization of curative and preventive care, develop norms as well as standard and legislative basis, protocols, etc. Financing of this sphere could be implemented rationally as a state order from the Ministry of Health, so as in the form of scientific grants on the line of the government, donor and international organizations. Such activity should widely involve non-governmental organizations – associations, foundations, centers, etc.

As was stated in the related part of the report, the newly introduced specialties, such as “general practitioner”, are not included into the official list of specialties of the Ministry of Labor and Social Security. Due to the above, statistics reports are slowed down, curative and preventive facilities level face increasingly difficult legislative problems, and the introduction of these specialties is slowed down as well. Taking into consideration, that the development of scientific and pedagogical resources provides great influence to the development of certain spheres of medicine, it is necessary to approve not only new specialties at the level of the Ministry of Labor and Social Security, but also new scientific specialties at the level of the Committee on Science and Technology and Higher Attestation Committee (HAC), such as: «general medical practice and family medicine», «preventive medicine, valeology», «emergency medicine, disaster medicine», «nursery», «information and educational technologies in the healthcare», «public healthcare, management and health economy ». It is also necessary to create specialist posts on these areas.

It is rational to consider the experience of quality groups establishment in curative and preventive facilities as in the Center of "Eye Microsurgery" and to widen its application as a main component of multi-level system of quality control and management. Organizational forms of medical services quality control and management in different curative and preventive facilities can be different, but it is important to comply with principles of objectiveness and friendship, principle of supervision and tutorship, but not the principle of administrative control with further punishment of physicians. At the level of rayon, city and oblast departments of the healthcare it might be possible to create special inside or outside branches on quality management, that could render methodical and organizational assistance to curative and preventive facilities in this issue.

One of the main components of multi-level system of medical service quality control and management should be the system of licensing medical workers, further it could be also the system of accreditation of curative and preventive facilities, in accordance with advanced international experience. However, the introduction of physicians' certification, when physician must confirm his right for curative practice every 5 years, can be introduced in accordance with the development of a system of continuous education, providing every physician, including rural areas, with real opportunity of constant improvement of his skills. In this context it is extremely important to develop the system of remote training and tutorship, which is brought in details in the related part of the report. Only after introduction of the system of certification of physicians will it be possible to make certain steps towards the development of accreditation system of curative and preventive facilities. The system of accreditation and licensing will become an integral part of the system of volunteer and compulsory insurance upon its introduction.



**Table 2.3 Ways of Reforming of Medical Services Quality Control  
and Management System in Periods of Reform.**

Names of stages	№	Years	Main activities
Preliminary, preparatory	I.	2004-2005	Establishment of scientific-expert and working groups within the MOH, under aegis of SMC, to monitor development of medical personnel norms, medical services packages, legislative-normative base, develop and approve clinical guidelines, standards, protocols and etc. Pass over the responsibilities for allocation of state grants on scientific researches in medicine from the committee of science and technique under Cabinet of Ministers to SMC of Ministry of Health. Redirection of medical scientific researches to practical course, with the priority in establishment human resource norms, medical services packages, clinical guidelines, standards and protocols for different levels of facilities and different levels of healthcare. Establishment under aegis of SAC, new scientific specialties in accordance with priority directions of healthcare system reform: "Medical Comprehensive practice and family medicine", "Medical prophylactics and valeology", "Emergency medicine", "Information, scientific, educative technologies in Healthcare, "Nursing".
Initial	II.	2006-2007	Start of medical services' quality assessment and control system establishment in medical facilities; Beginning of establishment of main prerequisite for physicians' licensing system introduction – development of post-graduate education and continuous medical education systems: establishment of institute for physicians qualification improvement, in particular development of distance education.
Interim	III - IV	2008-2011	Proposal for introduction the of medical services quality assessment and control system in medical facilities; Proposal for development of post-graduate distance education and system of mentorship. Beginning of gradual introduction of physicians licensing system.
Basic	III - IV	2012-2015	Finalizing introduction of physicians licensing system; Beginning of gradual introduction of medical facilities accreditation system;
Basic-perspective	IV - V	2016-2020	Finalizing introduction of medical facilities accreditation system

## **2.4 Specialized Medical Care**

### **2.4.1 Operationalization of Main Understanding and Functions**

This section provides definition of basic understanding and main functions for emergency care system.

**Emergency, critical conditions** – conditions having immediate, direct threat to life of the patient or to integrity/viability of the organ/system during immediate minutes and hours.

**Emergency medical care** must be rendered within immediate minutes and hours as follows:

- not more than 20-30 minutes within the city,
- not more than 1 hour within rural area,
- not more than 2-3 hours for distant areas, as well as under small and medium emergency situations,
- not more than 6 hours under large emergency situations.

**Emergency conditions**– conditions having no direct threat to the life of the patient or integrity/viability of the organ/system, however complications with a potential threat for life and for the integrity/viability of the organ/system may develop within immediate days and hours.

**Emergency care** must be rendered within several immediate hours as follows:

- not more than 4-6 hours within the city
- not more than 6-8 hours for rural area
- not more than 12 hours for distant areas, as well as under medium emergency situations;
- not ore than 24 hours under large emergency situations

**Emergency conditions** *include emergency/critical conditions as well as urgent conditions.*

*According to medical statistics, all the emergency conditions are referred to the category of acute diseases/conditions and are always registered as cases of newly developed conditions.*

**Final outcome** of an emergency diseases/condition– is a condition of a patient, when within the immediate months after complete of acute or chronic disease the significant changes of health condition in regard with the disease/condition is not forecasted in future.

**Intermediate outcome** of an emergency disease/condition – is a condition of a patient, when the main threat (direct or potential) for the life of the patient or to the integrity/viability of organ/system had passed and the patient needs early hospital or post-hospital rehabilitation.

**Emergency situation** – is an incident, suddenly caused by natural conditions or human's activity having large number of human and material damage and also having disproportion between the need in care and the possibility of its rendering in exact place within the exact time.

*Small, local emergency situations– up to 100-150 victims, up to 20-25 require hospitalization*

*Medium, local – up to 500 victims, up to 100-150 require hospitalization*

*Large – more than 500 victims, more than 150 require hospitalization*

**Emergency medicine** – is a system of organization, provision and conduction of curative and diagnostic activities to patients under emergency conditions.

**Disaster medicine** – is a system of organization, provision and conduction of curative and diagnostic as well as curative and evacuation activities to victims under emergency situations.

**Types of 24 hours hospitalization:**

1. Pre-daily (less than 1 day)
2. Daily (more than 1, less than 2 days)
3. Short-term (from 2 to 6 days)
4. Mid-term (from 7 to 14 days)
5. Extended (from 14 to 28 days)
6. Prolonged (from 28 days to 4 months)
7. Permanent (more than 4 months, term-less)

**Criteria of pre-daily hospitalization (just 1 of three):**

1. more than 1 complicated instrumental type of diagnostics - (bio-chemistry, ultrasound, X-rays, esophagogastroduodenofibroscopy, ECG, etc.)
2. more than 3 compulsory dynamic contacts with physician in the process of examination and treatment;
3. more than 1,5 hours of service;

**Functions of admission-diagnostic and emergency departments (basic package):**

1. Dispatching, registration,
2. Qualified diagnostics – clinical diagnose
3. Sorting of patients
4. Out-patient emergency care, including derived care to emergency patients not requiring hospitalization before the immediate outcome.
5. Pre-daily hospitalization: under unclear diagnosis, for psychiatric and infectious emergency patients.
6. Emergency and urgent care to patients hospitalized to the department
7. Hospitalization to profile departments
8. Pre-daily and short-term hospitalization to the department under the absence of necessity in mid-term hospitalization
9. Consultative and diagnostic care to «first contact» physicians by primary level facilities and «03» service on emergency cases
10. Consultative-diagnostic and curative care to profile departments on narrow specialties (ophthalmology, otolaryngology, etc).

### **03 service functions– ambulances (basic package)**

1. Emergency conditions service outside of curative facilities:
2. - not more than 20-30 minutes within the city,
3. - not more than 1 hour within rural area,
4. Emergency conditions service in curative facilities with the lack of proper conditions for rendering certain care:
5. Corps transportation for autopsy (separate vehicles and brigades).

### **2.4.2 System of Emergency Medical Care – Ways and Stages of Reforms**

Table 2.4 provides main ways and stages of emergency care reforms. An important step is the distribution of functions based on the definite clarification of what constitutes emergency and urgent cases and emergency patients in general.

Rayon-level hospital facilities should stand general transformation from oblast emergency care centers to centers of emergency and specialized care in the frameworks of general concept of the centralization.

For pre-hospital care, in the framework of the concept of improvement and increase of cost effectiveness, it is planned to distribute patients between primary care and «03» service as follows: - emergency care is rendered by «03» service, in possibility – by primary level facilities.

At that time *emergency care system* should include:

- «03» service,
- departments/facilities of emergency care,
- Primary medical care facilities.

While *system of ambulance care* should include:

- Primary medical care facilities
- departments/facilities of emergency care
- specialized departments of central rayon and city hospitals

The whole system of emergency medical care will include

- Primary medical care facilities
- «03» service
- central rayon and city hospitals with departments of emergency care
- Republican Center of Emergency Medical Care with oblast centers of emergency and specialized care

«03» Service in regard with handing over of functions on emergency pre-hospital care to primary medical care facilities can have the equipment standard for 1 vehicle not for 10 thousands., but for 20-25 thousands of population, while vehicles should be of a certain type – reanimobile type.

Air medical service is planned to be transformed into specialized medical-consultative service (SMCS) erasing functions of medical transportations. It will empower to replace field ambulance for ordinary car vehicles and decrease the expenditures. The recommended number of vehicles is 1 for 200 thousands of population instead of old standard of 1 for 100 thousands of population, considering optimization of consultative work. It requires the introduction of telephone consultations practice providing them with certain legal status. Dispatcher «03» services and air medical services should be unified.

In order to increase the motivation of consultative circuit activity it is rational to determine such order of payment, when the specialist is paid for consultative work in addition to main salary regardless of whether he conducted consultations during working time or during additional time. Approximate standard of expenditures for payments to staff and consultants, combustive-lubricating materials and amortization expenses for technology for circuit consultative activity is not less than 550 hours per 1 vehicle. Standard on staff members for Republican SMCS should plan only specialists on main emergency specialties, not less than 3 specialists per profile. Standard use of planes for Republican air medical service to be 1 outlet for 1 position. It is also necessary to plan the payment of business trip expenses by normal tariffs, in addition to the payment for call-in with the period of more than 5 hours.

Table 2.4 Reforming stages of Emergency medicine system

Names of stages	№	Years	Centers and units of emergency medicine, disastrous medicine	«03» service (ambulance)	Sanitary aviation	Primary care
Preliminary, preparatory	I.	2004-2005	Establishment of study programs, official approval of physicians specialties like, feldsher, emergency medicine nurse. Beginning of education of first specialists. Development of new emergency medicine standards for new specialty. Improvement of legislative normative base, development of started emergency and disastrous medicine system concept. Tashkent and big cities – establishment of Emergency departments in CCH. Rayon level – centralization of entire emergency care (except obstetrics) in department of emergency medicine in CRHs	Tashkent city – integration of technical and medical personnel of «03» (ambulance) service Integration of dispatch offices of ambulance and sanitary aviation services Transition to equipping the service only with reanimation-vehicles in oblast level Introduction of modern radio-communication system	Preparation of transition to specialized medical-consultative service (SMCS) concept  Integration of dispatch offices of ambulance and sanitary aviation services Removal of sanitary vehicles with (passenger) cars	Training GPs and Family Doctors according to appropriate standards of emergency care  Equipping SVP and city polyclinics with essential equipment for emergency care, including sanitary-vehicles
Initial	II.	2006-2007	Rayon level – centralization of entire emergency care (except obstetrics) in department of emergency medicine in CRH/CCH Tashkent and big cities – finalizing the establishment of Emergency departments in CCH. Oblast level – preparation and beginning of centralization of oblast emergency medicine centers and Central Oblast Hospitals (COH) Education of emergency medicine specialists for oblast centers. Establishment of mobile teams of emergency medicine for pre-hospital stage care in CRH/CCH, but not on permanent staff basis.	Development and preparation of call selection standards for receiver personnel Transition to equipping the service with specialized reanimation-vehicles on rayon level	Transition to SMCS system	Expanding volume of emergency care on primary level, particularly for chronic patients Equipping all PHC facilities with vehicles (mini-vans) of DAMAS type equipped with modern radio-communication system Training GPs and Family doctors in accordance with appropriate standards of emergency care
Interim	III.	2008-2011	Rayon level – education and introduction of emergency medicine specialists in CRH Oblast level – finalizing centralization of oblast emergency medicine centers and COH Finalization of disastrous medicine system establishment, including facilities of primary and secondary	Transition to a new call selection service system and passing emergency calls to PHC facilities		Providing service to (responding) to all calls Equipping all PHC facilities with vehicles (mini-vans) of DAMAS type equipped with modern radio-

Names of stages	№	Years	Centers and units of emergency medicine, disastrous medicine	«03» service (ambulance)	Sanitary aviation	Primary care
			levels			communication system + equipment for mobile emergency care providing Training GPs and Family doctors in accordance with appropriate standards of emergency care
Basic	IV.	2012-2015	Rayon level – full bringing up the strength of all CRHs with essential staff of specialists on emergency medicine			
Perspective	V.	2016-2020				



Disaster medicine service (DM) should be organized in accordance with modern approaches on efficiency, immediacy, and economy. The main problem for today in this aspect is pre-hospital stage, because the final outcome depends on immediacy and the quality of care. The existing system does not plan the insertion of primary care medical workers into the disaster medicine system. Besides, the standard on personnel and emergency medical care brigades equipment is complying with the actual situation.

It is recommended that a system of mobile brigades of emergency medical care (MBEMC) composed of 3 members – physician, feldsher/nurse, driver-aid-man, be created to provide special mobile kits for emergency care on the basis of rendering emergency pre-hospital care to 3-5 victims. Such brigade could use DAMAS vehicles. At that time it could be possible to standardize these kits with the one per emergency care brigades. Taking into consideration, that all SVPs and other primary level facilities are planned to be equipped with such medical auto-transport, then while medical vehicles park they can serve as an ambulance in rural area under ordinary situations, and as mobile brigade of emergency medical care under emergency situations. As a result, there is a wide network of MBEMC on the base of primary level facilities in addition to the reanimobile network of «03» service.

Combination of reanimobiles of «03» service and MBEMC of primary level facilities will empower the setup of a “rendezvous” system while rendering emergency care in the center of catastrophe in areas far from CRH/CCH. According to this scheme, the first arriving mobile arriving at the place of disaster are the MBEMC and start rendering care on-site. Later, when the reanimobile brigade arrives, it transports the victim to hospital at the same time continuing to render care.

Phased introduction of proposed changes will permit the elimination of duplication elements, significantly increase the efficiency and economy of the service counting upon serving 1 patient, to create modern mobile and immediate disaster medicine system service with minimal additional expenses.

### **2.4.3 System of Specialized Medical Care – Situation and Constraints**

Historically, system of specialized care started its development in 30-40s of past century through the establishment of separate types of dispensaries for rendering out-patient specialized care. Further these dispensaries at oblast and republican level started rendering hospital care as well. Presently there are the following types of dispensaries – dermato-venerologic, tuberculosis, oncology, endocrinology, psychiatric. In future, as for the healthcare development, started the establishment of polyclinics for rendering out-patient polyclinic care, as well as multi-profile and specialized hospitals. Further development of out-patient specialized care lead to the establishment of so-called consultative and diagnostic centers, well equipped with different diagnostic outfit. Also reproductive health centers and screening centers appeared within past several years.

All the stated types of facilities remained until present days, which already complies with the existing situation, creates duplication of functions and impedes management. Naturally, the number of service stages while rendering specialized care increases for patients as well.

At the Republican level there are several scientific and research institutes on separate spheres of medicine as well as specialized centers on the base of certain leading republican clinics. In 2003 special Edict of the President of Uzbekistan proclaimed the beginning of reforms in specialized care and the establishment of 4 Republican specialized centers – surgery, urology, cardiology, micro-surgery of an eye.

Specialized care has mixed type of financing – partially at the expense of budget, for socially vulnerable groups of population and socially important groups of diseases, as well as at the expense of payments from patients. Several types of specialized care, for instance, stomatological, is financed practically completely at the expense of payment from patients.

#### **2.4.4 System of Primary and Specialized Medical Care**

##### **– Operationalization of Main Understandings and Functions –**

**Dispensary system** is a complex of activities on serving patients conducted by the personnel of medical facilities with preventive and rehabilitation purpose. Dispensary system is conducted as among healthy, so among patients.

##### **Groups of D-record:**

**D1** – Medical examination of practically healthy people, target group : *children under 14, teenagers, fertile age women, workers of separate groups of enterprises, etc.*

**D2** – Medical examination of practically healthy, but weakened people and the ones of risk group.

**D3** – Medical examination of patients: *prevention of chronization of acute disease, torturing of chronic disease,*

**DR** – *Medical examination rehabilitation or medical rehabilitation.*

**Primary prophylaxis** – measures, preventing disease generation, or healthy life style programs.

It is the activity directed towards prevention of the disease and its harm. Nature protection activity can also be considered as a measure of primary prevention.

Executors: *Facilities of primary medical care, State Sanitation and Epidemiologic Surveillance Service, "Health" institute.*

**Secondary prophylaxis** – detection and effective treatment of early stages of the disease for prevention of its development and serious complications.

These are the measures of early diagnostics and treatment of disease, preferably at pre-clinical stage, in order to prevent complications.

Executors: *Facilities of primary medical care, specialized out-patient and hospital facilities*

**Tertiary prophylaxis** – prevention of complications and disability or undesirable consequences, rehabilitation of optimal organism after the transmitted disease, stabilization and prevention of deterioration of the disease.

Executors: *specialized out-patient and hospital facilities*

**Medical rehabilitation** – measures on maximal possible recovery of organism functions after transmitted disease or trauma and their complications.

Executors: facilities of primary medical care, specialized out-patient and hospital facilities, special rehabilitation centers, including those on the line with the Ministry of Labor and Social Security.

**Primary screening, mass health examination** – a part of primary and secondary prophylaxis directed towards the detection of diseases and risk groups.

Executors: facilities of primary medical care

**Periodical, monitoring medical examination**– a part of primary and secondary prophylaxis, directed towards the detection of diseases and risk groups among decreed categories of patients.

Executors: facilities of primary medical care

**Periodical, monitoring medical examination**– a part of primary and secondary prophylaxis, directed towards diseases control.

Executors: facilities of primary medical care, specialized facilities, mainly dispensaries.

Main tasks of primary medical and sanitary care:

- primary prophylaxis, primary screening (prophylactic medical examinations)
- conduction of secondary prophylaxis,
- diagnostics and treatment of most common diseases under typical options of disease course;
- Common rehabilitation after transmittance of most common diseases;
- Analysis of morbidity and quality of medical care at served areas.

Main tasks of specialized medical care–

- Supervision of primary level physicians
- Special types of diagnostics and treatment requiring application of special equipment and/or methods including patient's stay at hospital bed;
- Diagnostics and treatment of different diseases under various options of disease course;

- Special types of tertiary prophylaxis and rehabilitation treatment requiring special equipment and/or hospitalization
- Analysis of morbidity and the quality of medical care at served areas.

#### **2.4.5 System of Specialized Medical Care – Ways and Stages of Reforms**

The main idea of specialized care reforms is centralization and simplifying of facility system under remaining and improvement of their level and volume. (Table 2.5).

At rayon and oblast levels it is planned to conduct phased transfer to two basic types of out-patient specialized facilities – independent consultative and diagnostic centers and polyclinics under clinics. These facilities should replace all existing types of out-patient specialized polyclinics and dispensaries.

Hospital specialized care should also be centralized. All rayon-level hospitals, except infectious, should be included into CRH/CCH. Oblast-level facilities on the base of regional branches of the Republican Center of Emergency Medical Care should establish Centers of emergency and specialized medical care, while large cities should remain multi-profile clinics, for instance, clinics of higher medical institutions.

It will be necessary to modernize coordination of out-patient and hospital sub-divisions in these clinics by turning them into profile complex out-patient and clinical sub-divisions.

At Republican level it is planned to establish several leading specialized centers, which will become leading head facilities on certain spheres and will start the development of new methods and standards of treatment and diagnostics, to supervise and render organizational and methodical assistance to oblast and rayon facilities.

It is rational to revise the system of financing of specialists in the frameworks of basic package depending on the level as follows.

Standard for rayon level specialists on basic package – by the level of morbidity, complex formula with consideration of primary morbidity and delicacy of population.

Main tasks of rayon level specialists on basic package are:

- Diagnostics and treatment of frequently met diseases under non-typical options of the disease course by primary care physicians' referrals up to the immediate outcome;
- Diagnostics and treatment of more rare conditions and diseases by primary care physicians' referrals up to the immediate outcome;
- Diagnostics and treatment of emergency conditions (according to regulations for emergency conditions);
- Tertiary prophylaxis among patients referred by primary care physicians;
- Specialized rehabilitation for separate contingency of patients;
- Consultative and organizational-methodic assistance (supervision) to primary level physicians.

Main tasks of rayon-level specialists over basic package:

- Diagnostics and treatment of profile diseases without referrals;

Main tasks of oblast and republican level specialists on basic package:

- Treatment of most frequently met diseases under non-typical options of the disease course by referrals of rayon level specialists;
- Treatment of most rare conditions and diseases by referrals on rayon level specialists;
- Consultative and organizational-methodic assistance (supervision) of rayon level specialists;
- Analysis of morbidity and efficiency of specialized care.

**Table 2.5 Staged Approach to the Reformation of Specialized Medical Care**

Stage	No	Years	Third level facilities	Second level facilities	First level facilities
Preliminary, preparative	I.	2004-2005	The centralization of all specialized out-patient facilities on oblast level, apart from existing dispensaries, into Independent Oblast Consultative-Diagnosis Centers and Policlinics within big Clinics.	The centralization of all specialized out-patient facilities on Rayon level, apart from existing dispensaries, into Rayon Consultative-Diagnosis Centers within CRB/CGB The centralization of all hospitals of Rayon level into CRB/CGB of Emergency and Specialized Care.	The Establishment of Referral System to the specialists of the Second Level only by the family doctor's direction within the frames of the Base Package
Initial	II.	2006-2007	The same for out-patient facilities The start of Oblast Emergency Care Centers centralization with Oblast hospitals	The centralization of all specialized out-patient facilities on Rayon level, including dispensaries, into Rayon Policlinics within CRB/CGB The centralization of all hospitals on Rayon Level into CRB/CGB of Emergency and Specialized Care.	Overall Transition to Per-capita financing, the limitation of free directions volume to the specialists of the Second Level after the family doctor's direction within the frames of Base Package
Interim	III.	2008-2011	The centralization of all specialized out-patient facilities of Oblast level, including dispensaries, into Independent Oblast Consultative-Diagnosis Centers and Policlinics within big Clinics The centralization of Oblast Centers of Emergency Care with Oblast Hospitals	The centralization of all specialized out-patient facilities on Rayon Level, including dispensaries, into Rayon Policlinics within CRB/CGB	The same
Basic	IV.	2012-2015	The same		The transition to the partial fund keeping and partial payment for the consultative out-patient work of specialists of the Secondary Level facilities out of the budget of the Primary Level facilities, within the frames of the Base Package.
Perspective	V.	2016-2020			The Establishment of Referral System to the specialists of the Second Level only by the family doctor's direction within the frames of the Base Package

The standard of specialists on oblast level is stated according to the basic package – according to the number of population.

Thus, financing the specialists on rayon level according to the level of morbidity and the specialists on oblast level on per capita basis will facilitate the specialized facilities financing optimization, as the draw-backs of each financing system will be outweighed.

The standard for the specialists on republican level according to the basic package should be calculated comprehensively and individually, depending on :

- the morbidity level
- the number of specialists in the service
- the volume of tutor-guide work



