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**ADDRESS BY THE DIRECTOR-GENERAL TO THE FIFTY-SEVENTH WORLD
HEALTH ASSEMBLY**

Geneva, Tuesday, 18 May 2004

The Director-General begins in English.

Mr President, honorable ministers, distinguished delegates, ladies and gentlemen,

1. Many of you expressed concern during and after yesterday's discussions in plenary that substantial time was being taken out of the agenda for this week. I share your concern. Some Member States expected the Secretariat to influence the process to reduce discussion. In recent years, there had been prior agreement on shortening the debate. This year, there was no such agreement. The extensive debate showed that such matters are of great importance to Member States, and when Member States do not have consensus, it is important that they hear one another. Over the coming year, I will look into ways in which to facilitate the smooth functioning of the Assembly, so as to ensure that sufficient time remains for Member States to discuss during the session the entire range of topics on its agenda.

2. Regardless of their view on the recommendations of the General Committee, I am sure all Member States share my appreciation for the steps announced by the Government of the People's Republic of China to ensure Taiwan, China's involvement in global health. These include the possibility of medical and health professionals from the island joining the Chinese delegation to the Assembly, cross-Straits talks on Taiwan, China's participation in relevant WHO technical activities, working with the Secretariat to promote participation of medical professionals from Taiwan, China in WHO technical exchanges, and technical support from WHO. The SARS epidemic showed us that we cannot afford any gap in our global surveillance and response network.

3. I look forward to working in the coming months to put these proposals into action.

Mr President,

4. In the world today:

- 2.8 billion people are living on less than two dollars a day;
- 480 million people are living in areas of conflict, fearing for their lives;
- 1.2 billion people are struggling to find clean water;
- 40 million women, men and children are living with HIV/AIDS;
- over half a million women die in childbirth every year;
- 1.3 billion people smoke, exposing themselves to illness and premature death;
- 1.2 million people are killed in road traffic incidents every year.

5. The amount of disease, suffering and death in the world can be overwhelming. There is a notorious saying that "when one person dies it is a tragedy, but when a million die it is a statistic". For those exposed to danger and suffering, it is impossible to see things this way. They cannot be indifferent. As public health ministers, officials and workers we are constantly

reminded that the statistics we use are significant because they represent individual children, women and men. It is their voices that need to be heard. I, therefore, invited Anastasia Kamylyk from Belarus to this Assembly, and she will now tell us about her experience.

*Miss Anastasia Kamylyk speaks in Russian.*¹

The Director-General resumes his speech in English.

6. Thank you, Anastasia, for your courage, and for giving such a clear and specific reminder of the responsibilities of those taking part in this Assembly.

Mr President,

7. Advances in technology have profoundly changed the ways in which we live and work. They have brought many improvements, but our capacity to enhance health is matched by our capacity to damage it. The gap between rich and poor has widened and, in spite of surpluses, hunger and thirst remain widespread.

8. Despite commitments of nations to preserve harmony, peace and security, hundreds of millions are affected on a daily basis by wars and conflicts. Through our Health Action in Crises programme, WHO is active in most areas in the world affected by armed conflict.

9. I would like to use this opportunity to reassert that WHO is entirely opposed to any action that exploits health facilities, vehicles or personnel, in war or conflict zones. Equally, attacks on health workers have to stop. International humanitarian law imposes obligations on all combatants to protect civilians' access to basic needs – water, sanitation, food, and functioning health facilities.

10. We see more and more examples of civilians being made the victims of conflicts which often continue for many years. It is the people who can no longer get food, clean water and health care who suffer most, particularly women, children, older people, and those with chronic conditions. Health agencies have to stand up for those whose lives and health are endangered in this way.

11. There are also many parts of the world in which major environmental problems cause health to suffer as a result of unsafe water, unmanaged solid waste and unsafe living conditions. These are often related to unplanned urbanization, climate change and uncontrolled development.

12. Even in areas not afflicted by these health hazards, preventable chronic diseases related to lifestyle severely limit individual and public health.

13. Nevertheless, there is evidence that the world's desire and capacity to solve these problems is increasing.

14. Adoption of the Millennium Development Goals in 2000 demonstrated that the global community was serious about the need to reduce poverty and protect health. The most damaging inadequacy of today's health systems is their inequity, both within countries and between them. Hopes of peace and security in the world fade where these inequities prevail. Adequate health services are not only essential for the three Millennium Development Goals that relate specifically to health, but make major contributions to the other five as well.

¹ See annex for text.

15. The increase in development assistance for health over the last few years is also a welcome sign. This went up by an average of 1.7 billion dollars a year between 1997 and 2002. Much of this increase has been caused by growing awareness of the devastation being caused by HIV/AIDS.

16. In some communities, close to half of young adults are infected with HIV. They will die in the next few years unless they receive effective treatment.

17. In December of last year, on World AIDS Day, WHO launched the strategy to accelerate access to antiretroviral treatment. The initial objective is to work with a broad alliance of partners to get three million people in developing countries onto treatment by the end of 2005. We are working with the health services in countries to achieve this, following a double imperative: there must be universal access to treatment by the earliest possible date, and ever more effective approaches to prevention.

18. With the help of our partners we have developed simplified treatment approaches and prequalified fixed-dose drug combinations of antiretroviral drugs. We will further develop and expand this work. I also welcome the announcement made earlier this week by the Government of the United States of America for a proposed rapid process for review of fixed-dose combinations and co-packaged products.

19. In March, the Government of Mozambique issued a compulsory licence for manufacturing a triple combination of antiretroviral drugs to meet national needs. In doing so, they became the first African country to take this important step in implementing the Doha Declaration. Canada was the first country to propose changes to its patent legislation to put into practice a decision made by the World Trade Organization in August 2003, allowing exports of generic medicines to countries with insufficient pharmaceutical manufacturing capacity. I welcome the announcement made last week that this legislation has been adopted.

20. The Millennium Development target for HIV/AIDS is to stop the spread of HIV and begin its reverse by 2015. The impact of treatment on prevention of new HIV infections is not yet known, but if, for each person receiving treatment, just one new infection is averted, the "3 by 5" initiative will significantly speed up the achievement of the Millennium Development target.

21. The demand is clear. During February and March, WHO sent additional staff to 25 countries to assist in making national plans of action and applications for Global Fund grants. Over 90% of the countries we are working with have stated that they need expert help in capacity-building and training; 60% need help with drug procurement and supply chain management; and 50% need help with monitoring and evaluation. We are responding to these requests.

22. An unprecedented amount of political will and financial resources are now focused on the fight against HIV/AIDS, tuberculosis and malaria, particularly through the Global Fund and other multilateral and bilateral support.

23. Last week, the Prime Minister of Canada announced a grant of 100 million Canadian dollars to support our work in "3 by 5". Together with the earlier funds provided by the Government of the United Kingdom of Great Britain and Northern Ireland, this will enable us to rapidly accelerate our support to countries in scaling up access to treatment.

24. We will make our first detailed progress report on “3 by 5” to the International AIDS Conference in Bangkok in July. In the meantime, this year’s World Health Report, entitled “Changing History”, explains how we are now in a position to save the lives of millions of people from HIV/AIDS, and why we must seize this opportunity.

25. Viruses are unpredictable and they have no respect for national boundaries. There is, as yet, no way to say whether SARS has finally been brought under control, or whether avian influenza will make a comeback in Asia or elsewhere. Since the SARS epidemic was contained last July, there have been four further outbreaks in Asia. Three of these arose from laboratory accidents, emphasizing the need to strengthen bio-safety. In January, there was a historically unprecedented outbreak of avian influenza (H5N1) in eight Asian countries, with 34 human cases and 23 deaths. WHO experts provided prompt support for the authorities to contain these epidemics. Their combined efforts have been successful so far, but sustained vigilance is required.

26. Our other long-term disease control programmes include poliomyelitis eradication. Here, the key to success will be tenacity, both in our colleagues running the immunization campaigns and maintaining surveillance, and in our donors. We are on the verge of eradication, with just 22 cases to date this year in all of Afghanistan, Egypt, India and Pakistan.

27. On the other hand we have had setbacks in west and central Africa, with an explosive outbreak that has paralysed over 500 children. The leaders in these areas have now planned to restart synchronized mass immunization campaigns across 22 countries. If we do not lose our nerve in these last stages of the campaign, where so much can be either lost or gained, we will soon have kept the pledge, made by this Health Assembly in 1988, to eradicate poliomyelitis.

28. The Framework Convention on Tobacco Control, adopted by this Assembly one year ago, has now been signed by 112 countries plus the European Union, and ratified by 14. When 40 countries have ratified it, the Convention will come into force and further help governments and health authorities to protect the public from one of today’s most serious and most unnecessary health hazards.

Mr President,

29. I believe we continue to improve our capacity as an organization to respond to the challenges facing us. Last year, at this Assembly, in addition to my pledge to close the treatment gap for people living with HIV/AIDS, I made specific commitments in four other areas, designed to enhance our effectiveness in countries.

30. I set specific targets for decentralization. Since then, we have increased the budget allocation to regional and country offices for the current biennium to 70%.

31. I recognized the need to improve efficiency. We have developed a strategic framework for general management and launched initiatives to promote collaboration, strengthen financial management and streamline work processes.

32. I committed myself to improving our accountability. I am pleased to report that a draft of the performance assessment report for the 2002-2003 biennium is already available. With results-based budgeting, we are now reporting on our achievements against expected results. The development of this report has also assisted us in planning for the next biennium.

33. I stressed the need to improve our staffing situation by promoting greater equity in gender and geographical representation, and promoting mobility and career development, to get better results in countries. We continue to make progress in these areas and a mobility and rotation scheme was launched last month. I am also pleased to announce that the Bill & Melinda Gates Foundation has committed funding for the Health Leadership Service. This new initiative will provide a two-year structured learning experience in WHO for young health professionals, primarily from unrepresented and underrepresented developing countries.

34. But I would also like to highlight four areas of health work in which we need to do more.

35. We have yet to get to grips with the links between health, equity and development. The underlying theme of my first year as Director-General is equity and social justice. To support our work in this area, I am setting up a new commission to gather evidence on the social and environmental causes of health inequities, and how to overcome them. The aim is to bring together the knowledge of experts, especially those with practical experience of tackling these problems. This can provide guidance for all our programmes.

36. We have yet to make significant progress in reducing maternal deaths and protecting the health of children. I am, therefore, making this a major priority for the coming year. The World Health Report and World Health Day for 2005 will share a common theme: the health of women and children. This will bring together a large number of WHO's activities and those of our partners, particularly, immunization, safe motherhood, and nutrition.

37. We have yet to reduce substantially the gross inequity in health research funding. Every year more than US\$ 70 billion is spent on health research and development by the public and private sectors. Yet, less than 10% of this is used for research into 90% of the world's health problems. We are cosponsoring with the Government of Mexico a ministerial summit on health research in November. The summit will examine this issue, and focus on the knowledge and action needed to achieve the Millennium Development Goals.

38. Finally, we still have gaps and delays in health information systems. We have, therefore, set up a Strategic Health Information Centre at WHO headquarters. It consists of the most rapid and powerful information and communication facilities currently available for the management of crises and outbreaks. This technology will enable individuals, teams and Member States to take more effective action in emergencies. The Centre will also provide ongoing support for information management and dissemination. At the technical level, it is important to be sure that there is no hole in the global outbreak alert and response network.

The Director-General continues in French. A57/3

Mr President,

39. The agenda of this Fifty-seventh World Health Assembly demonstrates our common concern to address the major health challenges facing the world today. You will be discussing global strategies to promote healthy diets and physical activity, and to improve reproductive health. In round tables, you will discuss action to limit the impact of the HIV/AIDS pandemic. In technical briefings, you will hear updates of our work in crises, and in mental health. These are just a few of the many important topics you will be facing this week.

40. This World Health Assembly has a great responsibility in leading the world in action for health. The deliberations and decisions reached over these six days can have a profound impact on the health of every individual in this world.

41. I began with several numbers. I would like to end with some more.

- The five million children who otherwise would have been paralysed who will be walking in 2005 because of the effort to eradicate poliomyelitis.
- The three million tuberculosis patients now being treated every year under DOTS.
- The 600 000 cases of blindness prevented through the Onchocerciasis Control Programme.

42. The key difference is that these last numbers demonstrate what this Organization can achieve. They bring hope. Hope for individuals like Anastasia and the millions of people living with HIV.

Mr President, honourable ministers, distinguished delegates, ladies and gentlemen,

43. The staff of this Organization share your commitment to improving the health of the world, and we are determined to continue serving those most in need of better health.

Thank you.

ANNEX

TESTIMONY OF MISS ANASTASIA KAMYLK TO THE FIFTY-SEVENTH WORLD HEALTH ASSEMBLY

I am very grateful to you, Doctor Lee, for providing the opportunity to say a few words.

Good day, ladies and gentlemen. For me it is a great honour to take part in the Assembly, because history is being made here.

But first of all I would like to tell you a story.

There was once a country where there was once a city, where a girl once lived.

She studied hard at school, she went to college, she was a very good girl, and she always listened to her parents. When she was 18 she fell in love for the first time. He was a wonderful man. They went out together for two years. And then one day he said he was going away.

“My darling girl, forgive me, because I cannot forgive myself for what I have done”, he said, and went away.

And soon she went to hospital. People were very kind to her and for some reason they were sorry for her.

“You’ve got HIV”, said the doctor, on 14 January 1997.

That is my story. And it is just one story among the millions of those who now live with HIV.

I’ve now been living with HIV for more than seven years. And in all these years I have been watching the processes taking place in the world in this area.

I can’t stop asking myself questions:

“Why is it that the Government of Brazil has found the possibility and funds for providing antiretroviral treatment for ALL its citizens who are living with HIV and AIDS, and the governments

of other countries, particularly of Eastern Europe and Central Asia, cannot do so?”

“What difference is there between the value of a Polish life and the value of a Ukrainian, a Russian, a

Byelorussian, a Kazakh or a Georgian life?”

“Why do the pharmaceutical companies, which earn millions from the sale of antiretroviral drugs, not

think about lowering the prices of such medicines and saving millions of lives?”

It’s as if human life has become a nice little earner.

By signing declarations of “principle”, governments shoulder the responsibility for following up the principles of the declarations, however the real lives of HIV-positive individuals have changed little.

In the HIV/AIDS context, human rights carry on being ignored in the same old way.

In many countries antiretroviral treatment is still inaccessible.

You know that in Eastern Europe and Central Asia, most of those living with HIV are drug addicts, young people in the 18-35 year age range. And that to treat the AIDS stage among drug users,

replacement therapy is needed. And in this case it is YOU who decide the value of a human life – you who enjoy positions of authority. Just think for a moment, just your signature, a single order, can save millions of lives, or it can destroy them.

To this day articles appear in newspapers with phrases like “AIDS – the twentieth-century plague”, “AIDS victims”, “terrible disease”, which cause stigmatization and discrimination against people living with HIV. And why are HIV and AIDS any worse than cancer? Cancer develops independently of our sexual behaviour and of whether we use drugs or not, and we therefore feel compassion and support for people suffering from cancer. But the problem of HIV is bound up with social morality. We turn away from those who we consider to have behaved unworthily. And we cease to see the essence of the problem in drug taking and unprotected sex. HIV is only the consequence, its roots lie deep in each individual.

We have already created a multitude of organizations and associations that endeavour to deal with the problem of AIDS, hundred of conferences have been held, and a plethora of articles and papers have been written. But what has it all led to?

To a position where on this day of this conference, 8500 people will die of AIDS.

And where will you and I be?

We will be here, in this beautiful and hospitable city, discussing questions bearing on those very lives that are being carried off by AIDS, or other questions, for example, those you were discussing yesterday.

How many more meetings and conferences must be held before people living with HIV in each individual country begin receiving proper treatment and start to live without fear of what the morrow will bring, or of their own future? When will we stop counting the losses? The World Health Organization’s “3 by 5” initiative is one real way of starting to count the number of lives saved and to reduce AIDS mortality.

I believe that there are gathered here today the very people who are responsible both for their own words and their own deeds, as it is, after all, on your decision that depends the fate of each individual living with HIV.

Just imagine for a moment that you have had an HIV test and the doctor has just told you you are infected with HIV.

I remember that moment well.

The fear, the sense of doom, the hopelessness – these feelings overwhelmed me. What would happen now? Could I have a child? How could I tell my near ones and dear ones? Was it really the end?

The desire to be alone and hide in a corner drove me out of the doctor's surgery at a run. It is only now I know that with HIV a person can live life to the full. It is only now that having met during the past seven years so many HIV-positive individuals who are taking antiretroviral therapy, that I realize that medical drugs really do pull a person back from the grave. I know that I can love, raise a family and give birth to a healthy baby.

But to this very day I am also tormented by the fear that in my hour of need in the future, I may not obtain what will save my life or the life of my child.

Every human being is worthy to receive medical care when needed, and every individual is entitled to receive it, whether suffering from HIV/AIDS or some other illness. And the doctor in his hospital must have all the drugs, equipment and supplies to provide integrated medical care and not flout human rights and the law.

Now, in this assembly hall are seated many people who in their countries take decisions and enjoy positions of authority.

It is YOU I turn to.

Remember, it is your great responsibility and duty to act for the good of your own citizens. And please God your decisions will protect the dignity and rights of every individual, even if that individual is living with HIV.

PUBLIC HEALTH

ORIGIN AND DEVELOPMENT OF HEALTH CARE MANAGEMENT FIELD AT THE FACULTY OF MEDICINE, PALACKY UNIVERSITY, OLOMOUC, CZECH REPUBLIC

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Abstract

Since the year 2000, at the Faculty of Medicine, Palacky University, Olomouc (Czech Republic), a new health care management field of study has been implemented and its concept has been designed as the master's degree study, following the bachelor's degree study in health care and related fields. In introduction of this new type of study, experts from the USA participated in material assistance as well as in conceptual design (including know-how). The objective of this field is the preparation of new qualified managers in health care, who will be able to find a position in any type of health care organization.

So far, it has been a known fact, that the Czech health care lacks erudite health care managers with specialized education. The university study program with the master's degree at the Faculty of Medicine, Palacky University in the health care management field is unique in the Czech Republic. The graduates are ready to meet challenging tasks of management at various levels of the health care system which has been going through fundamental transformation.

Key words

Health care management; Palacky University, Olomouc; Faculty of Medicine, Palacky University, Olomouc; USAID – United States Agency for International Development; AIHA – American International Health Alliance; VCU – Virginia Commonwealth University, Richmond; field concept; graduate's profile; study results

Introduction

In June, 2003, at the Faculty of Medicine, Palacky University, Olomouc the first graduates of the health care management field passed examinations and successfully defended their diploma projects. The masters' degree study, following a bachelor degree study in health care or other related fields, has so far been unique in the Czech Republic.

The credit for its introduction and concept design can be given to not only experts and specialists from the Czech Republic, but also university teachers and experienced health care managers from allied health, medical and nursing schools as well as health service institutions in the

United States, who had worked in the Czech Republic as specialists and consultants. The professional assistance of the American partners consisted in giving lectures and seminars using interactive pedagogic methods, supply of up to date literature and journals, equipping the institution with computer technology, providing advisory and information service relative to current events in the field, consultations and, especially, professional educational stays in the USA.

As far as the Czech partners are concerned, the introduction of the new field of study at the Faculty of Medicine, Palacky University, had been preceded by detailed preparation. It was necessary, for example, to make legislative, conceptual, material and personnel provisions. This part of the project was covered by the Institute of Social Medicine and Health Care Policy, Faculty of Medicine, Palacky University, Olomouc, under the management of prof. MUDr. Ivan Gladkij, CSc., the head of the institute. Later, the institute also became the study organizer and guarantor. The fact, that first graduates are already working in the Czech Republic today, can undoubtedly be credited to the internal workers of the institute and also to the whole array of external workers from a number of professional workplaces and institutions from all over the Czech Republic.

The article is describing the journey lasting several years, leading to institutionalization of a new field and showing how a successful international cooperation can be put into practice.

History of the Partnership Project

In the year 1995, the United States Agency for International Development (USAID), which functions within the US Department of State, published a new project, whose objective was the introduction of teaching health care management at the university level in several countries of Central and Eastern Europe. Its purpose was to fill the gap in education of qualified health care managers, who could work in health care in managerial positions and speed up the health care transformation process in individual countries. The American International Health Alliance (AIHA), that coordinates government partnership projects in Central and Eastern Europe and former Soviet Union, with headquarters in Washington, was put in charge of the project. In the Czech Republic, the USAID, in cooperation with the AIHA, organized the nationwide selection process within which the Institute of Social Medicine and Health Care Policy, Faculty of Medicine, Palacky University, Olomouc, was selected as one of the Czech partnership institutions. In the American open competition, the Department of Health Administration, Virginia Commonwealth University (VCU), Richmond, Virginia, was selected as the American partner.

In January, 1996, the Faculty of Medicine, Palacky University representatives visited their partners in Virginia and the AIHA office, where the common work plan for the whole project was prepared. In February, 1996, the memorandum about cooperation in the area of the concept and introduction of the new Health Care Management field of study at the Faculty of Medicine, Palacky University, Olomouc, was signed at the US Embassy in Prague.

In the 1996 – 1998 period, several workshops were organized, with the assistance of the American partners, not only for the future teachers in the field, but, especially, for the managers of the health care institutions who were interested. For example, in June, 1996, in Olomouc, among other things, the first international one-week workshop took place, dealing with the subject of health care management, teaching this discipline, and its significance in the context of

health care as the whole. The lecturers were both the teachers from the VCU, Richmond and from the Faculty of Medicine, Palacky University, and the representatives of a similar partnership project, which took place at the same time with a university in Las Vegas on the American side and the University of Hradec Kralove¹ and the Faculty of Management, Jindrichuv Hradec,² on the Czech side³.

¹ The project partner was the Faculty of Management and Information Technology, which was, at that time, part of the University of Education.

²At the time of the project execution, the Jindrichuv Hradec Faculty of Management was part of the University of South Bohemia in Ceske Budejovice. At present, it is a part of the University of Economics in Prague.

³To a lesser degree, also other institutions participated in this second partnership project in the Czech Republic: Purkyne Military Medical Academy in Hradec Kralove, Faculty of Health and Social Studies, University of South Bohemia in Ceske Budejovice, and School of Public Health of the Institute for Postgraduate Medical Education in Prague.

In 1998, within the partnership, the Richmond-Olomouc video-conferences also took place in the auditorium of the Institute of Social Medicine and Health Care Policy. The video-conferences, which, on the American side, had personnel representation at a very high level, always brought up useful discussions and exchange of experience. It was very beneficial when the Czech participants prepared questions and problems in advance and were then able to deal with them with their American colleagues. The video-conference topics were selected from the area of health management: Health Care Quality Improvement in Hospitals, Human Resources Management in Health Services, Hospital Strategic Planning, Solving the Problem of a Conflict of Medical Ethical Command to Do All the Best for the Patient Limited Financial Resources in our Health Care Services, Private Non-Profit Organizations, Advantages and Disadvantages in Health Care, Ethical Issues and Euthanasia, Organizational Responsibilities.

On part of the Faculty of Medicine, Palacky University, and VCU Richmond, there were involved in the project not only the health services managers, economists, personnel officers, doctors or university teachers, but also nursing professionals (university teachers, head nurses from the Teaching Hospital, Olomouc). The project and its results brought significant strengthening of nursing field position at the Faculty of Medicine, Palacky University, supported its emancipation and open the door for further independent development. In September, 1996, the nursing department was transformed into a separate workplace – the Institute of Theory and Practice of Nursing at the Faculty of Medicine, Palacky University. This move was greatly supported by the AIHA project partners and can be considered one of the significant project results which we succeeded in achieving. The year 1996 was then the important milestone in independent development of the nursing field at the Faculty of Medicine, Palacky University.

The objective of this and further professional sessions was to define the basic functions of the health care management, analyze the conditions of the health care management system in the Czech Republic and outline its expected development, form the system approach to management of health care, define the managerial role, learn to plan and utilize financial tools in health care organizations, apply communication knowledge and skills – it means to generally prepare future profile of a graduate of the given field of study.

In the course of the project, the above activities were also held for nurses, for whom they were specially prepared.

In March, 1997, a two-week educational stay was organized at the Department of Health Administration, VCU, Richmond, Virginia, which was also attended by two university lecturers

from the Institute of Theory and Practice of Nursing (ITPN) and one head nurse from the Teaching Hospital, Olomouc.

In June, 1997, the International Annual AIHA Conference for Central and Eastern Europe was held in Zagreb, Croatia, which was followed by the Nursing Task Force Meeting – proceedings of the Committee for Nursing Development in Central and Eastern Europe. Both events were also attended by assistant professors from the ITPN.

During 1998, six video-conferences focused on nursing were prepared and held by the Faculty of Medicine, Palacky University and VCU, Richmond (AIHA project). Mrs. Mary C. Corley, prominent coordinator, was on the American side. With her assistance, it was possible to organize these three-hour live video-conferences for nurses with the following topics: Patient Support Groups, Nursing Leadership, Nursing Organizations, Licensure and Regulation.

In March, 1998, nurses took part in the AIHA International Annual Conference Central and Eastern Europe in Bucharest, Romania. It followed the Nursing Task Force Meeting Bucharest – the meeting of the committee for development of nursing in Central and Eastern Europe.

In June, 1998, the AIHA International Conference for nurses from Central and Eastern Europe and nurses from the USA took place. “The Nursing Association Leadership and Organization for the 21st Century” took place in Riga, Latvia. The Czech nurses were well represented at this conference as well.

In September, 1998, the second two-week educational stay was organized at the VCU, Department of Health Administration, Richmond, Virginia, USA. The lecturers from ITPN again took part.

The official part of the project was symbolically topped off by building the Nursing Information and Education Center within the Institute of Theory and Practice of Nursing, Faculty of Medicine, Palacky University (1998).

Formal as well as informal partners’ activities have been continuing until now. Examples: The head of the Nursing Information and Education Center was invited and participated in a workshop for managers of the Nursing Information and Education Centers from Central and Eastern Europe and countries of the former Soviet Union, which took place from **June 28 to July 2, 2000** in Jerevan, Armenia. Dr. Mary C. Corley (VCU School of Nursing, Richmond) personally attended the 3rd International Nursing Conference in Olomouc – **September 2000** and accepted the acknowledgement for considerable support and help in development of the nursing field at the Faculty of Medicine, Palacky University. In total, the conference was attended by 407 participants from 14 countries (USA, Great Britain, Spain, Italy, Belgium, the Netherlands, Germany, Austria, Finland, Sweden, Turkey, Slovakia, Poland and Czech Republic). The conference science committee was made up of representatives from five European countries.

The year 2001 (July 28 – August 2) St. Petersburg, Russia – we participated in the AIHA workshop for managers of the Nursing Information and Education Centers from Central and Eastern Europe and countries of the former Soviet Union. (Subject: nursing projects, nursing informatics).

The year 2002, (July 27 to August 8), Washington, DC: The 10th annual AUPHA, USAID, AIHA conference, where results of international projects from Central and Eastern Europe and Asia were presented. The ITPN lecturers presented two papers: “Development of Advanced

Management Training for Nursing Administrators” and “Educational Requirements and Competencies of Primary Care Nurses: A new Master’s Program for Nurses”.

As can be seen from the above, the project results as well as the contacts have been kept alive and up to date.

Concept of Nursing Management Field of Study

From the beginning, the concept of the new nursing management field of study at the Faculty of Medicine, Palacky University, was formulated as the master’s study, following the bachelor’s study. We assumed, therefore, that the starting students have already a certain degree of basic nursing, economical and managerial knowledge gained by the previous professional bachelor’s study. When making the field concept, we emphasized the required ratio between the theoretical and practical teaching, empirical learning, cooperation between teachers and practical managers, communication and management of working groups, utilization of modern audio-visual and computer technology, management ethics and general social approach to specifics of the nursing management.

Our effort was directed to constructive use of American experience with the basic conception, contents as well as methodology, but at the same time to set the field into the specific conditions of the Czech nursing. Emphasis was put on specifics of the Czech nursing with its problems as well as merits and its continuous effort to complete the systemic transformation. When the study plan of the nursing management field and its syllabi were being prepared, comments from not only the American partner institutions, but also from the Czech Ministry of Health, accreditation committee of the Czech Ministry of Education, Youth, and Sports, the Institute for Postgraduate Medical Education in Prague and workers from many faculties in the Czech Republic and other professional workplaces were taken into consideration.

The American lecturer in cooperation with the experts from the Institute of Social Medicine and Health Care Policy, Faculty of Medicine, Palacky University; Institute of Theory and Practice of Nursing and Information Center, Faculty of Medicine, Palacky University; Department of Sociology and Andragogy, Philosophical Faculty, Palacky University and Institute of Foreign Languages, Faculty of Medicine, Palacky University, were participating to great extent in preparation of the concept and curriculum of the new field of study. Beside pedagogy specialists, distinguished representatives from the field also participated in the project; we closely cooperated with the management of the Teaching Hospital, Olomouc, Regional Hospital in Prostejov, Prerov, Sternberk, as well as the private hospital in Hranice. Help was also offered by managers from other health institutions, for example from the General Health Insurance Company in Olomouc and Prostejov.

In the year 1997, the study program was successfully internationally accredited by the international accreditation commission appointed by AUPHA. In the year 2000, it was successfully accredited within the “Economy and Health Care Management, Health Care Management Field” study program by the Czech Ministry of Education, Youth and Sport. In his year 2003, the study program was successfully re-accredited.

Objectives, Contents and Program of the Field of Study

After all approval procedures and carefully prepared admission process, on September 21, 2000, teaching commenced in the combined form, which enables employed applicants to enroll, because it well combines the full time study with the distance study. The field of study is a goal oriented combination of health care, economy and some social sciences and the theoretical subjects are supplemented with educational stays at health institutions and absolutely essential practical activities. Applicants undergo the admission process based on the requirements set by the Faculty of Medicine, Palacky University. The combined form runs for three school years, that is six semesters, the full time form two school years that is four semesters. Teaching is focused on gaining necessary managerial type of knowledge, leading the graduates to work creatively without supervision in managerial and administrative positions in health care and related institutions. This field is designed for persons with preceding university education in health care and related fields. This means bachelor's or master's study programs offered by medical, health – social faculties or other faculties with related programs. Graduation from this study program does not provide qualification for a health care work position. Applicants interested in the health care worker status must, according to the Czech law, obtain it by the means of preceding studies. More detailed information related to the admission process and number of students in individual years of study as well as fields of study, who graduated from a bachelor's study, is shown in the following table and graph.

Admission Process

Table 1 – Statistical information summary, including graph

Applicants	00/01	01/02	02/03	03/04
Application submitted	97	110	115	93
Reported to admission proc.	72	79	92	71
Criteria met	69	79	92	50
Applicants accepted	24	22	19	21
Study commenced	24	22	16	18

Number of Students in Individual School Years

	00/01	01/02	02/03	03/04
1st year	24/0	22	19	21
2nd year	-	24	18	21
3rd year	-	-	17	19

Lifetime Education

The amendment to the law no. 147/2001, dealing with universities, enables the universities in the Czech Republic to offer educational program within so called lifetime education. Since the academic year 2001/2002, interested applicants as well as general public may also choose, under certain conditions, the parallel type of study of duly accredited fields of study, offered by the Faculty of Medicine. This option also includes the health care management.

Persons Interested in Study – Where Are They Coming From, Monitored Group of Accepted Students - Academic Year 2003/2004

University	Field of study		
University of Ostrava, Ostrava			
Health Care Social Faculty	health care management - nursing	Bc.	9
Health Care Social Faculty	health examining methods	Bc.	1
Health Care Social Faculty	social-health and geriatric care	Bc.	3
Masaryk University, Brno			
Faculty of Medicine	nursing	Bc.	7
Faculty of Medicine	human nutrition	Bc.	1
Faculty of Medicine	medical rehabilitation and physiotherapy	Bc.	1
Faculty of Medicine	optometry	Bc.	2
Faculty of Economics and Administration	public administration	Bc.	2
Palacky University, Olomouc			
Faculty of Medicine	medical rehabilitation and physiotherapy	Bc.	9
Faculty of Medicine	nursing	Bc.	13
Faculty of Physical Culture	medical rehabilitation and physiotherapy	Mgr. Bc.	1 2
Faculty of Science	optometry	Bc.	2
Charles University			
3 rd Faculty of Medicine, Charles University	health sciences	Bc	1
	general health	Bc.	2
1 st Faculty of Medicine, Charles University	nursing	Bc.	1
1 st Faculty of Medicine, Charles University	health care technology	Bc.	2
Faculty of Medicine, Charles University, Pilsen	health – social and geriatric care	Bc.	1
Faculty of Medicine, Charles University, Pilsen	nursing	Bc.	2
Faculty of Medicine, Charles University, Hradec Kralove	nursing	Bc.	2
University of Hradec Kralove			
Faculty of Informatics and Management	health care management	Bc.	1
University of South Bohemia, Ceske Budejovice			
Faculty of Health and Social Studies	radiology assistant	Bc.	1
Faculty of Health and Social Studies	nursing	Bc.	1
Purkyne Military Medical	military health care management	Bc.	1

The quality of the study curriculum is established by carefully selected study objectives and because the definition of the objective is usually identical with work competencies, acquaintance with them offers the reader a chance to become well experienced in practical teaching. The objectives of the study program were established so that the graduates will be able to:

- evaluate health state of the population and health care – political situation and factors influencing health care services (based on the knowledge gained by the preceding university study);
- get oriented in individual components, structure and organization of the health care system, in the way they are affected and how they change by mutual interaction;
- understand internal aspects of a health care organization including the visions, objective functions, roles of individual members, strategy and adaptation to changes. These skills and knowledge enable him to get oriented in the institutional culture;
- use the terms and key principles of legal and ethical standards, especially those, which are necessary for orientation in health care practice;
- understand financial, insurance and compensation structures of the health care system and their effect on the system, its components and participants;
- generally understand the management development, including organization theories. Be aware of the principle managerial functions and ability to utilize them in management in a current situation. This especially includes detail knowledge of planning, including strategic planning, management methods and options, types and effectiveness of managerial control;
- be aware of the importance of good personnel within an organization, including ability to get oriented in the labor market, in function of human resources management, including personnel strategy and planning. This must also include awareness of the importance of social consensus within the health care system, employees health care and their further education;
- understand the principles, theory and analytical methods of financial and managerial accounting with extra emphasis on costs, understand the financial situation of the health care organization and know how to plan the future development. This includes analysis of financial situation, cost determination, pricing, budgeting, cash flow and investment financing;
- recognize economic concepts, principles and theories and be able to apply them to health care organizations and systems, to problems of health care policy and managerial problems. This includes supply and demand, market oriented behavior, sources allocation and critical analysis of health care economical problems;
- to handle quantitative evaluation methods and analyses and apply them to problems of health care policy, management problems and organizational goals. This includes creating models, statistical evaluation, result measuring, project planning, industrial engineering, operating research, scientific management, planning, scientific decision making, analysis and control of assignments and their execution;

- recognize basic concepts, principles and theories of psychology, sociology and political science and apply them to the area of health care and to individual organizations. This includes the principles of learning, motivation, dealing with people and interpersonal relations.

In summary, it is required that the graduate has the following general, professional and specialized knowledge, skills and capabilities to be able to:

1. use system approach to managing and solving problems
2. handle managerial functions and roles, including their behavior and personnel
3. obtain, process, use and evaluate information necessary for management
3. create organization's (or its part's) concepts and plans
4. effectively manage and control activities and co-workers
5. handle macro- as well as micro-economic problems in health care, including
6. enterprise and marketing
7. learn important rules and skills in area of finance and accounting
8. apply relevant legal knowledge necessary for health care management
9. keep improving health care quality by effective and economical management
10. act in accordance with ethics principles of health care management

Scope of the study is programmed so, that

- the subjects, from which the knowledge how to understand management and economy of health care as systemic disciplines is derived, are scheduled for the beginning of the program,
- the core of the program are the subjects (compulsory as well as optional) aggregating into logical blocks the essential points of traditional as well as modern management
- the study concludes with the topics dealing with integrated knowledge and creative activities themselves, which are directed towards application of systemic procedures in health care,
- achieving positive study results presupposes a large portion of self-study, which means also a large portion of practical classes and seminars for more detailed specification of the new knowledge and its application methods, especially relative to subjects dealing to great extent with case solving and specific examples.

In the course of the study, professional individual students' activities are required and also monitored. For this purpose, in the first semester, the students' individual specialization is registered, which serves as a basis for the specialization of their semester projects, whose purpose is to extent this specialization in the course of the whole study so that the diploma project will be a practical complex solution of a selected problem from the view point of the subjects, taken by the students during the whole study.

Part of the curriculum is the practice between the second and third semester, focused on management of acute institutional and ambulatory care, the practice between the third and the fourth semester focused on operating and wage accounting and personnel department, between the fourth and the fifth semester on management of domestic and chronic care within the partnership organizations.

The study program does not only provide detailed theoretical knowledge, but also develops practically usable habits. This is the basis of the concept of this study program.

In the combined form, the emphasis is put on self-study with use of study material prepared by the Institute of Social Medicine and Health Care Policy, Palacky University, possibly

including foreign recommended literature. When self-study possibility is limited though, as, for example, the English or computer subjects, the students must attend the same number of lectures as in the full time form of study. We must emphasize though, that due to its character, the combined form of study is one year longer than the full time form.

The study is concluded by the final state examination, which includes the following main subject areas:

- I. health care policy, health care systems, management law and ethics,
- II. health care organizations and their management, managerial roles, manager's procedures and skills,
- III. economy, finance and accounting in health care services,
- IV. informatics and quantitative evaluation in health care services

Future Options for Graduates

While preparing the study program, we were analyzing all possible future options for the graduates. These include all levels of management (from the lowest level to the top level) in the following types of organizations and institutions:

- institutional as well as ambulatory health care (nursing, rehabilitation, domestic care and others),
- health – social care,
- health insurance institutions,
- state administration and municipal authorities dealing with health and social care,
- endowments and other non-profit organizations,
- private health care and their agencies

Conclusion

Last year, the first graduates completed the master's study, further grades are in progress and teaching successfully continues. Czech institutions, employers as well as graduates themselves appreciate this new kind of study in the Czech Republic, its form as well as quality. The study field has been recommended for re-accreditation even by the district commissioner, health care section head, Olomouc region, and general manager, Teaching Hospital, Olomouc. In practice, future positions for graduates vary. While some of them stay at their present work places, some are accepting higher management positions. We can be certain that their ambitions for achieving higher management positions are greater and if they have not been promoted until now, they will for certain try in future. The Institute of Social Medicine and Health Care Policy maintains contacts with the graduates, is interested in their future endeavor and anticipates that some of them will continue their study by taking a doctoral program.

Acknowledgement

We believe it is necessary to emphasize here again the importance of the partnership project, without which the preparation and execution of the introduction of the Health Care Management

field at the Faculty of Medicine, Palacky University, Olomouc, would have not taken place. Especially, we would like to extend our thanks to our American partners from VCU, Richmond, particularly to: Associate Professor Mary Corley, Ph.D., RN; Prof. Dr. Thomas Baker; Prof. Dr. Yasar A. Ozcan; Prof. Dr. Thomas T.H. Wan; Prof. Dr. Dolores Clement; Assoc. Prof. Dr. Anthony DeLellis for their self-sacrificing and friendly expertise and material help. Further, we would like to thank the USAID and AIHA for financing the partnership project and their significant participation in creation of its scope and its organization. In particular, we would like to name James Smith, general manager, AIHA and doc. RNDr. Sona Strbanova, CSc., coordinator of all AIHA projects in the Czech Republic and Hungary in 1995 – 1999. We would also like to express our appreciation to all other Czech and American colleagues, who have, through material help, advices, consultations or many other ways, contributed to development of the new field of study and fulfilled our desire for cooperation with other countries, leading to health care development, improvement of health care services as well as human and ethics values. Last but not least, we thank Professor MUDr. et PhDr. Jana Macakova, CSc., Rector, Palacky University and prof. Ing. Jan Halek, CSc. Vice Dean, Faculty of Medicine, who have been involved with the project from its beginning and in every way possible supported our work, including the introduction of this new field of study.

EMPLOYEE PERCEPTION OF JOINT ACTIVITIES FOR POLYCLINIC AND SANITARY EPIDEMIOLOGY SERVICES (Part I)

V.L. Reznik, A.E. Nugmanova, I.V. Ten, A.D. Abisheva, Djakieva G.T.

Outpatient facilities (OF) and sanitary epidemiology stations (SES) are considered as the primary healthcare (PHC) system and they undertake many joint activities. These activities include not only anti epidemic measures, but also activities related to environmental health.

Following factors are considered as essential for improvement of effectiveness of both OF and SES:

- employees' understanding of other facilities goals, objectives, its structure, interactions and their, legal obligations to public,
- formation of interrelations of among the facilities and involved specialists.

Because both type of facilities are a part of our primary healthcare system, it is important to study intra sectoral collaboration among these facilities. There is on going interest on identifying how the responsibilities in given system and its structure implements their publicly assigned duties.

There are no significant research reported in the literature despite the importance of the topic. This may be due to complexity inherent to the subject.

Research Question

The current study proposes to analyze polyclinics and SES employees' joint activities in providing public services on epidemic wellbeing of the population they serve, and further explore the organizational relationships between these two services.

In doing so, we will attempt to identify main trends using subjective evaluations, and potential areas of intra-sectoral improvement via formation of interrelations between OF and SES.

Methodology

For the purposes of the study, we developed two questionnaires. One was related to the issues on environmental health (EH), the second one was on provision of epidemiological wellbeing. Questionnaires had multiple choice and open ended questions.

A pilot survey was conducted in polyclinic #2 and SES of Medeu district of Almaty. The respondents to survey in polyclinic were 20 doctors. The average age of these respondents was – 46.3 years, average number of experience years in PHC facilities was 15.2 years. The respondents to survey in SES were 14 epidemiologists and 6 assistant epidemiologists. Average age of respondents there was 29.6, with experience of 8.8 years.

Results on provision of epidemiologic well-being

There were certain differences in evaluations given by employees of OF and SES. Evaluation of the contacts initiated by OF in the area of immune prevention given by OF employees was “good” or “very good”, there were no answers like “satisfactory” or “non satisfactory”. However, SES employees (95%) evaluated these contacts as “satisfactory”.

Level of contacts in immune prevention was evaluated higher than contacts in anti epidemic activities. Some of the OF employees were not satisfied by the level of contacts initiated by SES in above mentioned areas of activity. None of the employees of both services characterized existing contacts from SES to OF, and from OF to SES as “very good”. OF and SES differently evaluate their activities and initiatives in above areas, and each party is not sufficiently informed about activities of each other, this was especially highlighted for OF employees.

The interaction component describes an information exchange. It is evaluated insufficient by 45±11,11 % of SES employees, and 5±4,87 % of OF employees. Approximately 20% of OF employees could not answer this question at all, this may be due to lack of appropriate information.

Majority of SES employees evaluate information submitted to OF as sufficient or even excessive (75-100%), at the same time 20-30% of OF employees consider it insufficient, and 30% of them couldn't answer.

One of preconditions for inter-sectoral collaboration is information exchange. Opinions of SES and OF employees are very different in this regard. On hundred percent of SES employees indicated that they submit information related to above mentioned activities to OF, and only 55 – 60% of OF employees agree with this opinion.

SES employees indicated workshops as best form of information dissemination to outpatient facilities, however only 25-35% OF employees agree with this answer. Eighty-five percent OF employees rated given instructions as the best.

Evaluation of existing documentation system for anti-epidemic activities was rated as informative by half of the specialists of both SES and OF, it was rated excessively informative by 10% of OF specialists, and not much informative by 50 % of SES specialists. Ambiguous and opposite evaluations of the specialists from same and different groups indicate that there is a need to improve and optimize reporting documentation system, development of special training program showing how to work with documentation. The same results are obtained in evaluation of reporting and documentation on immunizations.

OF and SES specialists equally evaluate interaction between two organizations as very effective in both area of activities (40-60%, difference is not significant).

Vision of SES and OF employees on OF functions in OF anti epidemic actions are close. However SES employees rated OF actions planning 3rd, and OF specialists marked treatment, even though most important for anti epidemic activities is planning, and treatment is different area of activity.

It is interesting that OF employees consider control as a major SES function, at the same time SES employees rated this function 3rd. Opinions of interacting services on current SES functions are not congruent.

Conclusions

1. A number of advantages and disadvantages in joint functioning of SES and OF were identified in the area of populations' epidemiological welfare.

2. Some issues of joint activities are evaluated equally, and some have diametrically opposite opinions.

3. None of the respondents from both SES and OF evaluated existing level of contacts as "very good", while OF and SES employees have similar opinions on provision of epidemiologic welfare to population.

4. Insufficient awareness on activities of other organization is more characteristic for OF. Every 5th OF employee is not aware of information provided by SES, while SES employees evaluate this information as "sufficient, and even "excessive".

5. Effectiveness of existing system of workshops for OF specialists is low, and SES employees tend to over evaluate it.

6. Evaluations of different and same groups of respondents demonstrate that there is a need to optimize and improve reporting documentation system for provision of epidemiological welfare.

7. Joint SES and OF activities should consider special features of sanitary welfare provision to population. This issue is discussed in more details in Part II.

EMPLOYEE PERCEPTION OF JOINT ACTIVITIES FOR POLYCLINIC AND SANITARY EPIDEMIOLOGY SERVICES

(Part II)

V.L. Reznik, A.E. Nugmanova, I.V. Ten, A.D. Abisheva, N.P. Kabdykaparov

Research Objectives

This is a continuation of the research presented in Part I. Objectives of the research in this part of the study is to analyze SES and OF joint actions in the area of environmental health, as well as existing relations between these two services. Furthermore, we attempt to identify trends of subjective evaluation and perspective ways of optimization of intra-sectoral collaboration and relations in a system "SES-OF".

Methodology

We developed questionnaires that included questions both general and specific on children and adolescent hygiene (CAH), nutrition hygiene (NH), occupational hygiene (OH), environmental health and community hygiene (EH and CH), health facility hygiene (HFH), and radiation hygiene (RH).

Pilot study was conducted in outpatient clinic № 2 and sanitary epidemiologic station of Medeu district. In OF 20 doctors were surveyed with average 15.2 years of working experience in OF facilities. In SES 8 sanitary doctors and 6 assistants were surveyed their average age was of 37 years old, and they had average work experience of 15.7 years.

Results

Opinions of both services employees were the same only in regards to OF activities in the area of OH and HFH. OF employees rated CAH and HFH activities as most valuable ones. Large group of employees (30 to 75%) think that outpatient facilities conduct activities related

to different areas of hygiene. It was also noted that the least number of employees who couldn't answer relates to CAH (20 %), and the most to EH, OH and RH (45, 50, and 60% accordingly). A small portion of OF employees involvement is marked in the area of nutrition hygiene.

Number of evaluations given by SES employees for OF participation in different areas of hygiene activities is lower than self evaluation given by OF employees. This relates to CAH, NH, and RH. According to SES employees OF employees don't work at all in the area of RH, and insignificantly in the areas of OH, EH. HFH is an area where SES and OF regularly contact the most.

Despite the evident importance of EH and OH for population health only 10 % of OF employees consider themselves as initiators of activities in this areas, and SES employees consider that this number is even less, they also deny OF initiative in the areas like EH, CAH, NH, and RH.

Level of contacts initiated by OF as "very good" was not indicated by any employee of both services in any area of hygiene. OF specialists evaluated initiatives on CAH, NH, OH, HFH relatively high (35-40% of respondents), SES evaluations are lower, but on HFH are higher (71% of respondents vs. 35 % OF employees).

Sixty-five percent OF employees consider their participation in SES activities on controlling physical and legal entities for compliance to sanitary norms and rules as important. Six percent of respondents consider that OF should have appropriate rights. It is important to note that 43% of SES respondents also agree that OF should participate in sanitary control of enterprises based on coverage territory. However, only 29% agreed to delegate these responsibilities to OF. If we consider absence of precise opinion as negative response, then 71 % of interviewed SES employees do not accept other organizations' authority.

Half of OF respondents consider that they inform SES on identified cases of sanitary norms and rules violation noticed at coverage territory, even though more than half of doctors couldn't answer what can be considered as negative answer. At the same time 50 % of SES respondents absolutely deny the fact of informing by OF on sanitary condition of enterprises at coverage territory.

OF doctors (40±10,9 %) have insufficient information on coverage territory in terms of water supply and sewage, soil sanitary clearance and condition, food sellers and catering enterprises, preschool and school facilities, occupational conditions; 15±7,9 % do not possess this kind of information, and one third could not answer the question.

According to OF respondents, SES is a source of information to outpatient facility only in 40±10,9% of cases, share of mass-media and patients was identified as 35±10,6 %. At the same time, 70±12,2 % OF doctors would like to receive information on sanitary condition of coverage territory from SES.

Evaluations of OF and SES on OF doctors' knowledge level in the area of possible influence of environmental risk factors on health formation are not significantly different and are as follows: good - 30±10,2% (OF) and 14±9,3% (SES); satisfactory 40±10,9% and 57±13,2%; couldn't answer 30±10,2% and 29±12,1% of respondents. The lowest OF employees evaluated knowledge in the area of community hygiene (70±12,2%). SES respondents have similar opinion. One third OF doctors link existing knowledge level with insufficient training at postgraduate level, and 50±13,3 % of SES employees link it with undergraduate educational level.

One third of SES employees think that major reason of this situation is lack of appropriate interest from OF doctors to the issues of hygiene, however 80 % OF respondents marked that they do have interest to the issues of environmental risk factors. Thus, priority is development of curricula and training methodology.

Significant interest was caused by opinions of both services on sanitary hygiene requirements to OF. Absolute majority of both SES and OF respondents consider that it requires

reconsideration, or couldn't answer that also can't be a positive evaluation on normative documentation. At the same time significant part of OF doctors (45 %) consider SES requirements adequate, and SES employees have similar opinion. Opinion of 40% OF doctors about SES steep requirements don't comply SES employees' evaluation.

Conclusions

1. OF and SES evaluations have both negative and positive points in the area of hygiene that influence on health protection activities' effectiveness.
2. Improvement of intra-sectoral collaboration between OF and SES in the area of hygiene should be based on wider utilization of both facilities potential, expansion of legal opportunities for collaboration, and revision of a number of functions. It would be reasonable to consider OF participation in control provision of compliance to sanitary and hygiene norms by physical and legal entities at coverage territory.
3. Information on major areas of hygiene for OF employees is not sufficient in general. None of the groups evaluated contact as "very good" in any of hygiene areas.
4. Priorities in effective provision of intra-sectoral collaboration in a system "OF – SES" in major hygiene areas at coverage territory are as follows: to increase level of initiatives from OF and its employees; increased role of SES as methodology center for mentioned areas of activities; improvement of SES as coordination and information.
5. There is a high need in both facilities for improvement of sanitary and hygiene requirements for OF.
6. There is a need in improvement of OF employees' knowledge in main hygiene areas, and in development of appropriate training curricula considering high interest from doctors to the issues of environmental risk factors.

RETROSPECTIVE ANALYSIS OF DRUG ABUSE TRENDS IN KYRGYZSTAN DURING 1991-2002

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Since middle of 1990s, Kyrgyz Republic became a transit country for Afghan-originating opium and heroine. The Afghan-Tajik border became vulnerable and transparent. The drug traffickers were seeking to establish new routes via the Gorno-Badakhshan Autonomous Region of Tajikistan to Kyrgyzstan and further to CIS and European countries. In 1993, the first influx of the Afghan drugs came through the Osh-Khorog route was noticed [1], and it had an unfavorable effect on drug abuse prevalence in the country.

Materials and methods

We carried out epidemiologic analysis of drug abuse prevalence trends, incidence and treatments employing first order mathematical parabola and regression analysis with the data obtained from the State Drug Centre for the period of 1991- 2002.

Results

During the period studied, the whole country experienced a profound increasing tendency ($T_{\text{increase}}=+5\%$) in drug abuse incidence ($T_{\text{increase}}=+17.82\%$), treatments ($T_{\text{increase}}=+10.91\%$) and prevalence ($T_{\text{increase}}=+21.38\%$). The decline in drug abuse incidence and prevalence which has been observed in recent years has decreased the growth parameters but has not changed their general trend.

A strong negative association was found between the increase in the prevalence of drug use and decreases in prices for heroine and opium ($r=-0.7$) and (-0.86) . This confirms that drug traffickers use damping policy so that drugs can take root in the country.

In the period concerned, the incidence of drug use increased by more than 4 times, while the rate of treatments grew 3 times from 1991 to 1995, it remained approximately at the same level from 1995 to 2002.

The largest contribution to drug abuse prevalence is by male drug users. The portion of men registered with diagnosis of drug abuse ranged from 93.16% (2002) to 95.99% (1993) during 12 years. The portion of women registered in drug centers did not exceed 6.8% (2002) in the same period, and did not exceed 9.11 among new cases. However, compared to men, in women the growth rate is almost 2 times higher.

In terms of age-specific analysis of drug abuse incidence and prevalence, the 20-59 years age group was predominant (96.44-99.53%). For the drug abuse incidence, the age group 15-19 years ranged from 0.47 to 3.56%. As for the drug abuse prevalence, the portion of this age group was somewhat greater, from 1.89 to 14.67%, indicating that age of drug abuse is becoming younger. During the 12 year period, no more than 0.33% of drug abuse cases were registered in the age group under 15 years old.

In the period of concern, the total prevalence of drug use was determined by the level of prevalence of opiate drug use ($r=0.85$). The average-over-years number of opiate drug use cases, unlike the total prevalence, has a marked tendency for increase. For the studied period, the annual rate of increase was 27.16% despite that the number of registered drug abusers had been falling a little since 1999. This growth rate in the period up to 1999 was due to the growth of opium use and later of heroine use. The analysis of opium abuse prevalence within registered persons during the period 1996-2002 shows that there was an increasing trend for opium use until 1999 (almost twice) and the maximum number was recorded in 1999 – 84.17 per 100000 population. But from 1999 to 2000 a declining tendency is observed. The general trend for the whole period has moderately decreasing trend. Despite its decreasing tendency, opium drug use ranks first concerning its numerical portion. The prevalence of heroine use in the period 1998-2002 ranged from 0.71 to 24.63 per 100000 population and was much lower than that of opium drug use. However, it has the highest rate of increase. Thus, from 1998 to 2002 heroine used increased at a rate of 50.06% annually.

The retrospective epidemiologic analysis of statistical information of Drug Service showed that the formation of the northern drug traffic route via the territory of the Kyrgyz Republic has affected unfavorably of the general situation regarding drug abuse epidemiology. Taking into consideration that statistical recordings data do not represent the true picture of drug abuse in the republic, it is necessary to carry out additional epidemiologic studies in order to reveal a real epidemiologic profiles.

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THE ANALYSIS OF THE CRUDE MORBIDITY OF VARIOUS GROUPS OF THE POPULATION OF THE REPUBLIC OF KAZAKHSTAN FOR THE PERIOD 1991-2002

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In the modern conditions described by adaptation of health care system to the market principles, reduction of a network of the medical organization and the expressed population shift, problems of maintenance of the population medical services get a special urgency.

We, with the purpose of studying health status of the population have analyzed parameters of the crude morbidity for the years 1991-2002 on the basis of the statistical data of Ministry of Health of the Republic of Kazakhstan.

Studying of the crude morbidity at various groups of the population has shown heterogeneity of rates and tendencies of change of their level. Thus crude morbidity of adults is characterized by the steady tendency to decrease in 1998 and has been 84,9 % of a level of 1991, further the gradual increase is observed, and by 2002 on 2,7 % exceeded a level of 1991. The similar tendency of change of a level of the crude morbidity is observed among children, achieving the lowest level in 1998 (86,9 % to 1991r.), and further the curve of a parameter of the crude morbidity rises top and by 2002 exceeded a level of 1991 on 5,8 %.

At teenagers for this period the annual increase in a parameter of the crude morbidity which in 2002 year 2,2 times was higher than a level of 1991.

Studying of the crude morbidity of adults in the Republic of Kazakhstan in 1991-2002 has shown, that in 1991 its structure the greatest densities was occupied with illnesses of breath system (23,5 %); nervous system and sense organs (11,2 %); digestion systems (11,1 %); system of blood circulation (9,8 %) and illness of urinogenital system (6,7 %).

It is established, that for the period of 1991-2002 it is observed essential changes of structure of disease on different classes of illnesses. Thus, densities of illnesses of breath system has decreased from 23,5 % in 1991 up to 17,0 % in 2002, the increase in densities of illnesses of nervous system and sense organs - from 11,2 % up to 14,1 %, system of blood circulation - from 9,8 % up to 12,1 %, illness of urinogenital system - from 6,7 % up to 10,7 %, endocrine systems, frustration of a feed and infringement of a metabolism - about 2 % up to 3,2 % at the same time is observed.

At the analysis and an estimation of the crude morbidity among teenagers it is established, that its structure differed from those at adults. So, it is revealed, that in 1991 in structure of the crude morbidity among teenagers on the first place there were diseases of system of breath, making 38,5 % from the general parameter. On the second place - illnesses of nervous system and sense organs (14,5 %); on the third - illnesses of system of digestion (10,2 %), and on the fourth, as against adults, a trauma and a poisoning (8,6 %).

In 2002 the structure of disease has a little changed. Nevertheless leading place in structure of morbidity illnesses of system of breath (29, %), nervous system and sense organs (17,3 %), system of digestion (9,5 %), skin and hypodermic (8,3 %).

Studying of dynamics of parameters of the crude morbidity among children in the Republic of Kazakhstan in 1991-2002 has shown, that in 1991 in structure of an investigated parameter the leading place (55,9 %) was occupied with illnesses of system of breath; the second place was occupied with illnesses of nervous system and sense organs (8,3 %); the third - illnesses of system digestion (7,15 %); the fourth - illnesses of a skin and hypodermic - fatty клетчатки (5,6 %).

In 2002 the parameter of the crude morbidity of children has achieved a level of 1991 and in comparison with 1998 has increased for 15 %. Thus at the kept distribution places densities of diseases continued to raise at diseases of blood and blood organs (on 40,6 % in comparison with 1998), and also illnesses of urinogenital system (on 26,2 %), systems of digestion, and also illness of nervous system and sense organs.

The analysis of parameters of diseases of various categories of the population for the years 1991-2002 has shown, that in formation of health of adult population leading place occupy illnesses of systems of breath, nervous system and sense organs, system of blood circulation and urinogenital system and from teenagers and children of illness of system of breath, nervous system and sense organs, system of digestion, a skin and hypodermic клетчатки. On the subsequent places at adults of illness of system of digestion, a trauma and a poisoning, and at teenagers and children illness of urinogenital system, a trauma and a poisoning.

It is possible to assume, that the caused tendencies in structure on classes of illness are caused in many respects by change of an economic situation and social - psychological

instability of the population, is especial at men of able-bodied age, in transitional conditions. Social vulnerability, unemployment, psychological stress and increased uses of alcohol undoubtedly promoted increase in parameters of separate classes.

In process of becoming market economy, macroeconomic stabilization, the centre of gravity in business of health protection moves on citizens. Health of people becomes all in the greater degree a real economic category that causes increases of their personal responsibility in preservation and strengthening of health.

It is possible to ascertain, that during change of a political establishment, parameters of health of the population there are that social indicator which defines a direction and rates of social and economic transformations in the country.

SURVEY AND SOCIAL-HYGIENE ANALYSIS OF MEDIUM-LEVEL HEALTH PROFESSIONALS IN ASTANA

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Availability of sufficient number of qualified and professionally trained health professionals is one of the most important preconditions for health services provision to population.

Efficient human resources management is one of the prerequisites of any healthcare organization's performance. Human resources development and training plays an important role to reach objectives of a healthcare system. Attitudes towards job and professional knowledge of health specialist, and optimal coordination of activities and labor incentives have impact on healthcare systems' performance objectives.

Literature review shows that mid-level health professionals (MLHP) are the largest group of manpower within a healthcare system, and issues related to their social-demographical structure were never studied in Kazakhstan.

We conducted survey of 165 MLHP of different health facilities of Astana. Objective of our research was to study MLHP demography, their attitude to their profession, qualification, job satisfaction, etc. We developed self-administered questionnaire that contained questions on age, education, family status, job satisfaction and so on and they (mostly nurses) completed the detailed this questionnaire.

Number of MLHP in Astana as of January, 2003 was 2152 which constitutes 60.0 per 1000 (average national indicator – 60.3); similar ratio for doctors: MLHP is 1:1.7 (National - 1:2.1). Portion of women involved in this profession is 98,6%, men – 1,4%. Portion of working nurses at retired age is 4.6% (National – 3.1%).

Distribution of respondents by health facilities were as follows:

- MLHP in out-patient facilities (adult and pediatric polyclinics, dispensaries, rural ambulatories, etc.) - 49%,
- MLHP in inpatient facilities (adult and pediatric hospitals) – 42%,
- MLHP in specialized health facilities (Research Clinics) – 9%.

Age, gender, and ethnic analysis of the respondents were conducted with following results.

- 1) Age was broken down to four groups and percentage of respondents in these groups were: 25 and younger (5,4%); 36-45 (32,7%); 26-35 (31,5%); and 55 and older (3,6%),
- 2) All respondents were women
- 3) Ethnic origin analysis demonstrated that most numerous groups consists of kazakhs (57,3%), second – Russians 26%. Other ethnic groups represented by Ukrainians, tatars, Germans, and others makes 17%.

We also conducted analysis of MLHP compliance to their basic education (position they are working and specialty in diploma). Currently MLHP have permission to work on the basis of diploma of professional education and qualification only on the positions complied with their basic education. They can provide other clinical/professional activities after completing appropriate courses and receiving certificate of completion.

Portion of MLHP whose job and specialty in the diploma did not comply with current job status included: pheldshers – 10.5%; out- and inpatient nurses – 3%; midwives – 10%. Thus major part of clinical MLHP have high level of compliance of the job and education.

One of the important demographical indicators is the total number of years in profession. Table 2 depicts The distribution of total medical experience (number of years worked after graduation from nursing school), and experience according to occupied position (specialty). It was found out that young specialists (with experience less than 3 years) constitute 9.8% of the group, while the group with experience up to 5 years was 42.4%. Portion of specialists with experience of 20 years and more was the highest within nurses of inpatient facilities.

This analysis of health professionals according to “years of experience on basic specialty” reflects qualification of the specialists in more details even though it is quite subjective, and therefore has practical importance for postgraduate education planning (V.A. Jukov, 1987,1994, 1995; A.I. Toropcev, 1989) Comprehensive analysis of MLHP age-gender distribution and medical experience years defines important indicator – portion of MLHP that are not eligible for postgraduate education. This indicator is a sum of two indicators: portion of young specialists (experience less 3 years) plus portion of MLHP at retirement age. In Astana this indicator as January of 2003 was 20.1%.

Identified differences of years of experience underline again a need in differentiated approach to postgraduate education planning.

We observe a direct correlation between qualification category and years of experience, where 40.7% of the MLHP have qualification category as follows: higher - 18%; first - 43%; and second – 39%.

We also included an issue of professional succession. Profession selection and professional development is closely related to personality development and environment, including relatives that belong to certain profession.

MLHP manpower is an issue that requires further research. We suppose that MLHP manpower *преемственность* must encounter issues with professional orientation, and have influences on their professional competence. This influence can be explained for those MLHP that have relatives as health professional (doctors, pharmacists, etc.) have an additional regular sources of knowledge through private conversations on medical issues, experience exchange, consultations, discussions of complicated and atypical cases from clinical practice. Moreover those MLHP that have relatives in medical profession they carefully plan their future in the profession while entering the nursing school.

We also studied MLHP profession satisfaction. This indicator reflects both specificity of MLHP labor, and migration from one specialty to other.

Profession satisfaction indicator was quite high - 88.3% based on all respondents. This indicator varies based on specialty and years of experience. MLHP of different experience groups were differently satisfied with their profession. Those who had 6-25 years of experience were the most satisfied group. The less satisfied respondents were ones with experience less than 5 years. Thus, satisfaction and years of experience has positive correlation. The reason given for migration from one specialty to other was noted mostly within group of young specialists.

Following is a family status distribution of MLHP of Astana: married – 68.5%; not married (both single and divorced) - 28% (3.5% did not respond). Eighty-one percent of respondents had children with majority had two children (46.8%) (1 child - 22% of respondents; 12.6% have 3 and more). Our research demonstrated that biggest portion of multi-children families worked in city outpatient clinics. Factors like family status children, and number of children influence on indicators of coverage, volume and quantity of postgraduate training of health professionals.

It's a well known fact that one of the most important factors of health services quality is availability of standards for healthcare services. Majority of respondents (65%) are fully supplied with professional standards 22,2% are partially supplied; 12,8% -are not. We also studied MLHP opinion on most important

problems of their facilities. Majority of them noted “insufficient financing and weak material technical basis”, and nobody noted “insufficient number of health services”.

Certain interest present MLHP about role of nurses and extent of their responsibility for the patient after doctor prescribes treatment. The responses to the question “Who in your opinion bear main responsibility for the patient after doctor prescribes treatment?” 74.5% of respondents answered “both doctor and nurse”. 11.5% still think that “doctor is fully responsible”, and 14% think that nurses are responsible at this stage of medical care.

To the question of nurses’ status respondents answered following: 36.9% - assistant to a doctor; 63% imagine nurse’s role much wider and a mentioned a role of a manager of the lower level medical staff.

Next series of questions were regarding to personal attributes required for this profession. Eighty respondents (48.5%) marked “organizational skills”, 21.8% - “compassion and милосердие”, 9% - “personal charm and politeness”, 5% - “инициативность и аккуратность”. Priority of the qualities like «diligence», “professional experience”, “fast reaction” was mentioned by 10.7% respondents.

Responses to questions on performing non-professional tasks (performing lower level medical staff tasks such as cleaning after patient is discharged, changing bed sheets, etc.) indicated that majority of respondents (more than 80%) performed such tasks. They underlined that it is inappropriate for prestige of profession. As it was before, most preferable working place for 60.4 % respondents are inpatient facilities.

We also were interested in nurses opinion on current issues of nursing development in Kazakhstan. Almost all respondents mentioned following: improvement of legislation related to nursing, low labor remuneration, low prestige of profession in the society, and a need to improve nursing education.

On the basis of this research we can conclude that there is a need to solve the problems like a role of nurse in healthcare system, prestige of the profession, quality of nursing services, revive traditions of nursing милосердия. Prospective postgraduate educational plans of appropriate territorial healthcare bodies should be evidence-based and developed with consideration of need indicators differentiated by specialties.

SOCIAL AND DEMOGRAPHY SIGNIFICANCE OF REPRODUCTIVE LOSSES

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WHO strategy for XXI century in section 3 “Healthy life start” indicated that member states of WHO should provide universal access to reproductive health services, reduce infant mortality to below 20 per 1000 birth by year 2020. Considering this fact Kazakhstan as a WHO member state has great challenges in providing universal accessibility to reproductive health services, and reduction of infant mortality.

Reduction of reproductive losses that include fetus losses (due to perinatal mortality and abortions) and maternal losses (maternal mortality) could become a basis for improvement of main social demography indicators and infant mortality (Burduly, Frolova, 1997)

According to A.Baranov, I.Tsybulskaya, and V.Albitskaya (1999) reproductive losses cause significant social harm in the society. They reduce average life expectancy by 1-2 years, and as a consequence they reduce participation of each generation in a process of economical production by 2-3%.

Level of reproductive losses as shown in Graph 1 is high for Kazakhstan in 2000. 334843, Total number of pregnancies during this year (334843) ended as reproductive loss (142315 or 42.5%) including fetal losses of which constituted 99,9 % (maternal 0,1 %).

Until recent times, perinatal and maternal mortality were calculated separately in Kazakhstan, and all over the world. This did not give an opportunity to evaluate comprehensively perinatal and maternal losses (i.e. evaluate all reproductive losses). Due to this reason we suggest a set of new indicators of reproductive losses. Reproductive Loss (RL) is a reproductive loss per 1000 women at fertile age, and reproductive losses per 100 pregnant women. Consequently, reproductive losses in a country were 32.9 per 1000 women at fertile age.

Next indicator is reproductive losses per 100 pregnant women. We found that in Kazakhstan this indicator is equal to 42.5 per 100 pregnant women, indicating that almost each second pregnancy ends with reproductive loss. Major portion of these losses belongs to fetal losses (99.9 %), and 94.3 % of them are abortions.

Using same method we identified reproductive losses in the various regions of Kazakhstan. In Almaty, for example, the reproductive losses were calculated as 38.0 per 1000, and 72.0 per 100 pregnant. It is necessary to note that Almaty makes greatest contribution to abortion rate in the country.

In North Kazakhstan region reproductive losses per 1000 were 42.3, and 90.1 per 100 pregnant. Major reason for these losses is abortions. Atyrau region has one of the lowest reproductive losses in the country even though they have quite high level of perinatal losses. This is because of the low abortion rate which is 2.5 times lower than in northern regions.

Level of reproductive losses is one of the highest in East Kazakhstan region. It is 42.5 per 1000, and 94.1 per 100 pregnant.

Reproductive losses in Kzyl Orda region raised great interest, because it is a zone of ecologic disaster. There, level of reproductive losses was lower than in northern and eastern regions of the country. However, its causation is mainly from perinatal losses and miscarriages that are 2.2 times higher than in the country in average.

South Kazakhstan region has reproductive losses a little less than in Kzyl-Orda region, and 2-3 times lower than in Northern and Eastern regions. It is related mostly to lower impact of abortions and cultural orientation of women on child birth.

In Kazakhstan, the reproductive losses are composition of fetal losses that make 99.9 % of total reproductive losses, and 94.3 % that are abortions. Level of reproductive losses differs depending on geographical regions, and it is more prominent in north and east Kazakhstan regions.

We evaluated social significance of reproductive losses in a context of demographical position. Our analysis included average abortions for the country, and its regions, starting from 1985 when the highest birth rate was experienced during last 20 years (24.9 per 1000 people, or 381255 birth deliveries).

Comparative analysis showed that from 1985 to 2000, number of pregnancies per 1000 women of fertile age significantly reduced from 174.9 to 78.3 (by 2.2 times), number of birth deliveries reduced from 86.8 per 1000 WFA to 54.5 (1.6 times), abortions reduced from 81.1 per 1000 WFA to 30.9, (by 2.6 times).

However despite significant reduction in abortion as a reproductive loss makes significant impact to demographical indicators, in particular to birth rate.

We created a scenario demonstrated by following analysis: in 2000 birth rate in Kazakhstan was 14.0 per 1000 population, and if reproductive losses of 37.8% of WFA would not happen as an abortion (total abortions that year were 134111), but would be ended by child birth then birth rate in 2000 in Kazakhstan would be 23.7 per 1000 population. Hence, the country would achieve the level of 1985 when it had peak birth rate. These calculations demonstrate how reproductive losses damage demography indicators.

Our research of social significance of reproductive losses, particularly abortion, for demographical indicators of the country also showed prominent impact of unrealized births to birth rate indicator.

If women of fertile age would fully implement their reproductive function with birth delivery, not resorting to abortions in 2000 then in North Kazakhstan region birth rate would be 21.2 per 1000 population instead of 11.1, in Atyrau -23.2 per 1000 population instead of 19.1, in East Kazakhstan – 23.0 instead of 11.1, in Kzyl Orda region – 25.7 instead of 20.6, South Kazakhstan region – 26.3 instead of 22.5, and Almaty – 26.3 instead of 12.5, i.e. in some regions of Kazakhstan birth rate would be twice higher (see Table 1).

Therefore, reproductive losses are an objective criteria for evaluation of impact of medical, social, economical, biological and other factors on female reproductive function, and it is

necessary to consider medical and social significance of reproductive losses and its impact on populations' reproduction for development of demographical policy.

TO A QUESTION OF NEEDS OF COMMERCIAL SEX WORKERS IN MEDICO-SOCIAL SUPPORT

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Now prostitution, alongside with a narcotism becomes driving force in distribution of the HIV-infections and sexual transmitted diseases.

The negative, contemptuous attitude of medical workers to prostitution reduces an opportunity of reception by them of qualitative medical services.

The purpose of the present research was a sociological evaluation of need of commercial sex workers in medico-social support.

For carrying out of sociological research by an anonymous method in Shymkent, 586 commercial sex workers have been interrogated.

Studying of awareness of respondents about displays of the basic sexual transmitted infections, testifies to the certain awareness respondents about displays of the most dangerous sexual transmitted infections (AIDS, syphilis, gonorrhea). However their knowledge of "small" infections, are extremely insufficient. This circumstance is negatively reflected in vigilance concerning these infections, weakens attention to carrying out of obligatory hygienic procedures and promotes their distribution.

There is direct dependence between age of women and frequency of search of medical services. It is possible to believe, that with the increasing of experience of women on commercial sexual activity the understanding of necessity of regular supervision over a condition of the health as on his level, finally, high competition on the sexual services market and level of income directly deepens on their health status.

For "beginners" engaged in commercial sexual activity anonymity, cost of services of the doctor, than their qualification and quality of treatment of great importance. With increase in the "sexual" experience women regularly visit a doctors who are obviously, under the fixed tariffs carry out the control on their health. Thus as appeared, the priority is given the familiar doctors, working in the state medical organizations. During too time it is clear, why women of advanced ages, are treated more often. Simultaneously it is necessary to note, that interrogated with the greater vigilance concern to the reference in again created friendly clinics. Apparently, they still, do not have sufficient confidence of anonymity of activity of friendly clinics. It is obvious, that functioning of clinics should be accompanied by more effective supply with information, on the other hand, important that in the state medical institutions the morals and the psychological conditions corresponding to the greater trust to them were created, observance of anonymity should be the fixed rule, and requisitions - are liquidated.

Thus, conducted research opens new opportunities and create new methodical base for planning and forecasting of need of commercial sex workers in the medico-social support.

DRUG ABUSE WITHIN WOMEN OF FERTILE AGE

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Drug abuse is a worldwide problem. Nowadays, traditional narcotic substances are substituted by new ones that are usually more harmful, and have different ways of in taking. The recent drugs

frequently are used in an injectable form, and this leads to high risk of HIV infection incidence for drug users.

Drug abuse and illegal trade of drugs has become a catastrophe in many countries of the world, especially in developed ones. (Pyatnickaya I.N., 1995)

Multiple drug utilization also became a problem among drug users who switch from one drug to another, usually more stronger, as well as combination of different drugs.

Wide spread of drug abuse in developed countries is determined by social conditions that exist there: unemployment, uncertainty of future, constant stress, etc. All these factors are enablers for a desire to get "high" that creates an impression of energy burst, and leads to temporarily escape reality. On the other hand, drugs are very profitable business for drug dealers, and this fact fuels a number of problems.

In majority of the countries that participate in anti-drug activities, the controls are only a small part of drug products that were entered to the list of prohibited drugs. According to WHO experts, drug abuse is a disaster that is a great threat to healthcare at worldwide. Its danger increases with the increase of illegal production of new types of drugs that are becoming more stronger and harmful.

Self-injection of drugs with non-medical purposes causes serious problems related to health of individuals and population in general. Although injection based drug use has been existence in developed countries for a long time, during the last two decades this method of use was spread in developing countries (WHO, 1998).

These trends are more alarming if we consider a fact that drug abuse is not a problem of male population anymore. Now, it rapidly becomes a real threat to women, especially of fertile age and adolescents. Thus, drug abuse becomes heavier burden to the society in general. Even though drug abuse is characterized by physical manifestations it belongs to social diseases and requires appropriate intervention.

Organizational approaches to service delivery to drug dependent women often are lacking or exist sparingly in few developing countries. Existing clinical or rehabilitation protocols usually don't consider specific needs of women; for instance, the fact that women might need help in looking after children when she starts treatment, or sense of guilt and shame that appear during the course, as well as difficulties in communicating people are not considered. While men usually consume alcohol and illegal drugs, adolescents use inhalation substances, women usually consume prescribed pharmaceuticals such as tranquilizers. Moreover, women usually consume alcohol and drugs at home, thus their problems are less visible to the society. It was found that even though women are less likely to consume illegal drugs, their consumption of cannabinoids, amphetamines, heroin and other kinds of illegal drugs is increasing, and moreover a trend to consume several drugs is significantly increasing.

We have interviewed 105 drug dependent women at Almaty Municipal Narcological clinic. Questionnaire included 45 questions that covered various characteristics related to drug dependent women such as: age and gender; ethnic origin; family status; highest level of completed education; age indicator; drug used first time; what do they know about harm of drug consumption and drug dependence, did they have breaks in drug consumption; how available and affordable are drugs; were they treated and how many times; etc. Separately we studied issues related to reproductive function of drug dependent women such as sexual activity; indicator of reproductive function; pregnancies and their outcomes.

All respondents were at fertile age and majority of them were in the age group 21-30 (71,4%). No significant differences were found out in relation to family status.

Following data relates to age at first drug consumption: up to 20 - 7,1%; 20-25 - 78,6%, and 25 and older - 14,3%. As we can see a majority of them first tried drugs at the age of 20-25 years old. We discovered one interesting fact, which shows that almost every sixth woman older than 25 marks her first drug consumption at this age. We find it peculiar, because people at this age should know about consequences of drug consumption.

Majority of respondents started drug consumption from so called “khanka” (injectable form of hashish) - 86%, and 14% - started from heroin. Last group usually includes those who just started drug consumption. Unfortunately despite the fact that 71,4% of respondents know about harm of drug consumption they continue to do it.

Analysis has shown that 85,7% of respondents tried to quit drug consumption, and their anamnesis shows breaks, and 14,3% - constantly consumed drugs.

Regarding availability and affordability of drugs respondents answered that they didn't have difficulties. We also found out that drug consumption has negative effect on sexual health, 57% of respondents noted decreased libido.

Examination of respondents' reproductive function demonstrated that majority of pregnancies of drug dependent women are ended either by medical abortion or induced delivery (40% and 30 % respectively).

Examination of somatic health of drug dependent women demonstrated that all respondents have extra-genital pathologies. Most frequent ones are: liver diseases - 64,3%, kidney diseases – 28,6%, and heart and vascular diseases – 7,1%.

Analysis of gynecological diseases of drug dependent women caused the most of interest. Disorders of menstrual cycle appear to be most typical ones. Great portion of amenorrhea (11%) and sterility (9,6%) might be an evidence of negative impact of drugs on women's reproductive function.

Thus reproductive function of drug dependent women is characterized by: high weight of menstrual cycle disorders; high number of abortions; infertility; STIs; inflammatory diseases of uterus and uterine appendages.

Considering a fact that drug consumption doesn't recognize geographical, social, cultural borders, it is important to involve population and PHC systems to participate in prevention, assistance and treatment of drug dependence activities conducted by WHO. Society should be prepared and provided with everything needed for assistance and care provision for those who need it as well as to stand against psychiatric disorders and social rejection that are predetermined by drug abuse. It is necessary to teach population especially the youngest how to escape drugs within communities where drug abuse is flourishing. It can be possible only if political leaders, legislators, and society in general will realized multidimensionality of the problem, and will aim their efforts to support actions MOH and health professionals designed to solve the problem. Moreover, health policy should be designed with consideration of drug abuse related problems, as well as drug related policy should consider and integrate healthcare related problems.

Our research showed that drug abuse problem is epidemic in our country. Considering that women bear main responsibility for future generations' health they should be provided with opportunity to access medical and social services in the area of female drug abuse.

Complexity and scale of drug abuse problem require appropriate integrated approach. Drug abuse prevention can be conducted in a form of healthy life style promotion and risk factor reduction while respecting the human rights.

IMPLEMENTATION EXPERIENCE OF THE MODULE “EVIDENCE-BASED PRACTICE IN PUBLIC HEALTH”

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A new term of "Evidence-based Medicine" was suggested by Canadian researchers from McMaster University in 1990. Later this notion was rapidly disseminated and gained followers

in different countries of the world. Evidence based medicine centers were established in many countries including Russia. They started to play important role in national healthcare systems. A number of Russian higher educational institutions started to teach evidence based medicine; December 2002 a constituent assembly of Evidence based medicine Specialists Society took place in Russia. Currently regional divisions of the Society were established in 15 Russian regions.

Major objective of evidence based medicine is very simple – to use in practice only those clinical and diagnostic procedures that proved their effectiveness on the basis of strict scientific principles of clinical studies. Understanding these issues will help to a future doctor to have rational and cost-effective approach under the conditions of health system reforms.

One of the evident reasons for need in evidence based medicine is increased volume of scientific information, in particular in clinical pharmacology. Annually clinical practice introduces big number of pharmaceutical products. They are actively studied in many clinical research projects that have ambiguous or even opposite outcomes. At the same time an access to scientific information was simplified. Nowadays any Internet user can get information about thousands articles related to the problem. However, in order to use this information it is necessary to identify suitable information sources using appropriate search strategies, thoroughly analyze it in terms of reliability and utilization of scientific approach. Health professional can and should evaluate and use it correctly. It is important to remember that information itself is not as important as an ability to get and apply it! It was found that majority of conflicts in medicine are consequences not of lacking knowledge, but inability to apply it correctly.

Search, evaluation and identification of evidence on rational utilization of measures that have proven positive or desired effect under similar circumstances will let to integrate in practice individual clinical experience with best experimental research outcomes and latest developments.

(4)

There is other reason – lack of resources linked with increased health expenses. This situation requires selection of those medicines that have the highest effectiveness and best tolerance from the great number of existing pharmaceuticals. It also should be noted that novelty and high price don't guarantee its higher effectiveness. A problem of rational resource utilization is very important for our country. From one hand health care budget of Kazakhstan is evidently insufficient, but from the other hand they widely use pharmaceuticals that don't have proven effectiveness (or to the contrary, have proven ineffectiveness) or causes doubts. It is also necessary to identify its best practical use along with proving effectiveness and safety. It is obvious that there is no sense to make treatment cheaper by using cheap, but ineffective pharmaceuticals, but there is also senseless to prescribe expensive ones when the same or even greater effect might be achieved by cheaper means. Both ways finally lead to cost escalation. In Kazakhstan treatment methods that are absolutely unjustified have unexplainable popularity. They actually represent stereotypes that are copied in articles and some textbooks. Principles of evidence based medicine are very important in teaching. Students and young doctors that don't have clinical experience are easier influenced by subjective factors, that's why they easily form false notions and ideas. Probably there is no need to add new course in medical schools, but it is important to bring up aspiration for critical analysis of scientific information.

In the area of education we face one other difficult problem. Textbooks for students become out of date at the moment they are published, because it takes several years to develop them. And many things happen during this period.

Kazakhstan School of Public Health (KSPH) is a coordinator in the area of public health training in Central Asian Region. KSPH is a part of National educational system that provides post graduate training and retraining of human recourses for different areas of public health.

This module is based on the workshop conducted at KSPH by ZdravPlus project of USAID, PHC development project by DFID and British Council, Association of Family Medicine, Almaty state Institute for medical continuous education. First of all we used our own developments, and wide literature data. Lectures were conducted by faculty of KSPH Learning

Resource Center and departments. All lecturers were trained at different international workshops on evidence based medicine. We used modern methods of interactive teaching (brain storming, discussions, small group activities, etc.).

It is a 36 hours module that has lectures and practice. Participants were learning principles of evidence based medicine. They also learnt methodology of clinical study reliability evaluation: to read critically clinical articles, to quickly evaluate reliability of presented outcomes. It was very useful to learn about sources (mainly Internet-sources) that publish reliable information in the area of evidence-based medicine, successful clinical practice, etc. Following issues were specifically emphasized: terminology and tools for evidence based medicine; sensitivity and specificity; number of patient that should be treated; likelihood ratio; prognostic value; types of interventions; types of research; hierarchy of research data according to evidence degree; formulation of clinical problem; meta analysis; stages of systematic review; development of evidence based clinical guidelines; assessment of existing clinical guidelines, and examples. Benefits of software for data analysis and processing were demonstrated to participants.

Practice was based on individual projects. Technical capacities of KSPH allow each participant to prepare individual project. In this process participants selected problem, formulated clinical question, conducted search and literature evaluation of Internet resources.

These practical classes are importance and necessary because in medicine an important role belongs to subjective factors such as personal experience and so on. In certain situations individual experience is important; however there are situations when it will not be useful. It is evident that in some situations like appropriateness of preventive care doctor can rely only on clinical study outcomes. Sometimes personal experience can form false opinions on pharmaceuticals. Sometimes doctors try to use new pharmaceuticals for treating most severe disease forms with no visible effect that causes disappointment. However some pharmaceutical could've been very effective for light or medium-sever forms, or for certain groups of patients (for example, elderly, or with concomitant diseases). That is why individual activities are important to prove benefits of evidence based medicine for participants.

Hand out materials, 3rd complemented issue of the medical Internet resources reference-book, and Certificates were handed to the participants. Module was evaluated by anonymous questionnaire. Participants mentioned high necessity and usefulness of the module, they expressed their opinions on perspective utilization of gained knowledge in their activities with patients, colleagues and students. Participants also indicated topics that should be in their opinion expanded or supplemented.

Under conditions of healthcare reforms, decentralization and privatization of health organizations requirements to professional training of health specialists become more strict. In other words, success of health sector reorganization depends on accessibility of health specialists to new knowledge in the area of medicine, biology and neighboring sectors, as well as on their effective utilization. (5)

We hope that evidence based medicine training for health specialists will enable them to critically analyze both existing and new clinical approaches, to select the best ones, and it will definitely improve health services quality.

EFFICIENCY AND SAFETY OF NOOTROPIL

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In 1972 one research laboratory of one of the biggest European pharmaceutical companies (Belgium) studied psychotropic drugs Jurjea. During this research they have found out that pyracetam facilitates memory and learning processes, and these effects don't have side effects typical for psycho stimulating drugs, such as motion and speech agitation, and addiction. These studies led to creation of new class of pharmaceuticals – nootropic drugs (from latin noos-thinking, and tropos – aspiration). First product in this group was nootropil (pyracetam) produced by UCB. Nootropil is widely used in our country since the end of 70th to treat vascular diseases of brain, asthenic conditions, consequences of neurological traumas and infections. In 1994 outcomes of multicentral randomized study of nootropil high dosages effectiveness for patients with stroke was published, and new era in pyracetam studies and utilization started.

Nootropils' mechanism of action.

Multi-component action of nootropil has two main lines: “neuroprotective” and “vascular” (improvement of brain blood circulation. Neuro protective action of nootropil is determined by improvement of neurons' metabolism, optimization of oxygen consumption and glucose utilization.

As is well known normal process of neurons' energetic metabolism can be simply described as oxygenation of pyruvate (glucose derivative). Next important stage in development of ischemic disorders is increased concentration of calcium inside of the cell that is caused by calcium release from mitochondrions under the conditions of high concentration of potassium and free lipid acids that proceed from endoplasmic reticulum during ATP deficiency. Ischemia increases exaidotoxic amino acids (glutamate and aspartate) outside the cell. Glutamate activates calcium channels into the cell that in turn starts vicious circle of pathologic biochemical reactions.

Neuroprotective action of nootropil is multi-component. It enables glucose breakdown on pentose phosphate shuttle, increasing ATP metabolism, as well as cyclic adenosine monophosphate. Functioning of this shuttle is related to formation of the substances that neutralize free radicals and impede lipid peroxidation of membranes. Nootropil stimulates adenylate kinase activity that enables glucose anaerobic metabolism without formation of lactate. Positron rotational emission tomography that lets to visualize glucose metabolism showed that after nootropil administration glucose metabolism in the infarction zone and surrounding functionally inactive zone increased in 20 minutes after i/v administration. Also was noted increase of local brain blood circulation from 10,8 to 11,3%, and anticipatory increase of oxygen extraction coefficient and local oxygen metabolism from 7,5 to 13,2%, with ATP, carbon dioxide, and water formation. This is an anaerobic process related to oxygen consumption. Oxygen Consumption varies from 6 ml/100 grams/min in cortex to 2 ml/100 grams/min in white substance. Average glucose consumption is 4-7 ml/100 grams/min. Under conditions of oxygen deficiency due to hypoxia or ischemia there is accumulation of lactate, development of acidosis, and formation of free radicals. Ion homeostasis suffers because disfunctioning of energy dependent potassium pump causes accumulation of sodium ions inside, and potassium – outside the cell. Last factor provokes swelling and edema of the tissues and increases the size of functionally inactive zone of ischemic necrosis of brain tissue – a zone of ischemic “penumbra”.

Currently many facts showing that disorders of acetylcholine and glutamate neurotransmission determine “age” memory and other cognitive functions disorders were collected. Nootropil interacts with neurotransmitters system and stimulates cholinergic and aminacidergic (aspartate and glutamate) neurotransmission.

“Vascular” action of nootropil is determined by following factors: decrease of platelet aggregation; increase of erythrocyte deformability; decrease of erythrocyte adhesion to endothelium surface; decreased plasma and blood viscosity; decreased vascular spasm without vasodilating effect and hypotension. All these factors determine positive influence of nootropil to brain blood circulation and don't impact on general hemodynamics.

Positive effect of nootropil as an anticonvulsant was also described. Utilization of nootropil for treatment of intoxication dependence (alcohol and drug abuse) seems to be effective and reasonable. Major effect of nootropil is defense of the brain cells from anoxaemia and toxic damage via rehabilitation of disordered cell metabolism.

Most positive effect of nootropil is noted within individuals with senile involution and cerebral atherosclerosis that have psycho organic syndrome.

It was found out that nootropil is most effective within patients with severe and medium severe strokes that received treatment within first 12 hours. It was also found to be highly effective for the patients with vocal disorders. It was indicated for treatment of post stroke aphasia and later periods after stroke. High dosages of nootropil (2,4-4,8 grams per day) are used in rehabilitation period after stroke. It demonstrated longer influence on memory and learning ability of the patients after 3-month course.

Nootropil doesn't have direct effect on a number of psychiatric disorders, however it lets use high dosages of neuroleptic drugs without fear of complications. Nootropil is an only pharmaceutical product that demonstrated its effect in treatment of retarded child development in early childhood.

Evaluation of nootropil high effectiveness wouldn't be full with description of its action only. Important property of nootropil is that it doesn't have pronounced side effects and contradictions for utilization.

Thus, nootropil of new form and dosage, but old high quality and effectiveness has appeared on the market. It will definitely enable further growth of popularity, and most importantly - more successful treatment of the patients.

UTILIZATION OF QUADROPIL IN ARTERIAL HYPERTENSION CLINICAL PROTOCOLS

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Reduction of increased arterial blood pressure (ABD) is, definitely an important task for the patients with arterial hypertension (AH). Appropriate control over blood pressure is still a crucial tool in a clinical protocol of this widely spread disease. Today a selection of antihypertensives is quite diverse. It includes pharmaceuticals from diuretics to the ones that block rennin-angiotensin system (RAS) at different levels. However, most popular ones are that have organ protective abilities in addition to AH reduction, because it should improve diagnosis of the patients with AH who take medication during long period. In this regard creation of adenosine converting enzyme (ACE) inhibitor is a great achievement on AH and other cardio vascular diseases treatment. This group of pharmaceuticals combine advantages of high antihypertension effectiveness and good tolerance that provide high quality of life with proven cardio, vascular, and kidney protective action, and most importantly reduction of cardio vascular complications and increased life expectancy of the patients with long medication period.

Currently clinical practice of AH treatment uses more than 12 ACE inhibitors that are different by content of various chemical groups in a molecule that interact with ACE active centers, by lipophilicity, by biotransformation ways, and by antihypertensive action.

Preferable pharmaceuticals for long medication period of the majority of chronic diseases are the ones that have prolonged effect. From this position most optimal among ACE inhibitors are the ones that belong to II and III generations. This group includes quadropiril (spyrapril) produced by «AWD pharma», Croatia. Bioavailability of spyrapril at per os administration is quite high, in average 50%, it reaches its highest concentration after 1.8-3 hours. In 4 hours after 3-12 mg spyrapril administration activity of ACE is decreased by 75-92%. Intensity of this effect doesn't depend on duration of its utilization, and when using dosage of 6 mg this effect is maintained after 24 hours. Thus, spyrapril is related to a group of the most effective ACE inhibitors.

Excretion of spyrapril is implemented in two stages with starting period of half excretion equal to 1.5-2.2 hours and final - 30-40 hours. Such long period of half excretion due to slow release from ACE compound determines long-term (more than 24 hours) maintaining of its antihypertensive effect. This fact allows to prescribe it only once a day. That in turn provides convenient utilization and better adherence of the patients to follow protocol. This is one of the important advantages of spyrapril comparing to other representatives of ACE inhibition group.

Second significant advantage of spyrapril is its dual excretion with urine and gall, each of the ways takes approximately 50%. It provides safety of administration to the patients with kidney disorders. Spyrapril demonstrated no accumulation in blood plasma with intake of full therapeutic dose of 6 mg per day during 4 weeks even in patients with decreased creatinin clearance. Due to its safety quadropiril should be preferred ACE inhibitor for the elderly patients with poly organic pathology. Proven optimal dosage is 6 mg once a day.

Third significant advantage of quadropiril is absence of arterial hypotension of "first dose" after first administration of full therapeutic dose of 6 mg. Due to this fact achieving of optimal hypotensive effect doesn't require titration, and it is very convenient for prescriptions under both out and inpatient conditions.

Quadropiril demonstrated good tolerance and low number of side effects.

Objective of our research was examination of clinical and haemodynamic effects of quadropiril (spyrapril) produced by «AWD pharma» inpatients as a arterial hypertension monotherapy.

Methods and material: we examined and treated 42 patients (29 males, and 13 females) with 2-3 degree of arterial hypertension. Inclusion criteria were as follows: AH patients with diastolic blood pressure 90-109 millimeters of mercury, and systolic - 145-199 millimeters of mercury that didn't get antihypertensive therapy during 2 weeks. Following are criteria of exclusion: secondary arterial hypertension, diastolic blood pressure above 110 millimeters of mercury, systolic - above 200 millimeters of mercury, any severe concurrent disease (liver or kidney function disorders, congestive heart deficiency, myocardial infarction during last 6 months, not compensated sugar diabetes, any episode of cerebral circulation disorder during last 6 months). Duration of inpatient stay was 10-12 days. Quadropiril was prescribed 3-6 mg once a day. All patients passed clinical instrumental examinations: arterial blood pressure monitoring, two-dimensional echocardiography on the unit SIM 7000 SFM, 12 patients had daily arterial blood pressure monitoring according to standard method with analysis of common indicators. Statistic analysis was conducted with assistance of MS Excel.

Outcomes: average age of the patients was $69,2 \pm 1,7$ years old, average arterial blood pressure at the moment of inclusion to research was 159.7/98.5 millimeters of mercury, heart rate - 75.3 per min. Duration of AH in anamnesis in average was 7.8 years, number of patients had different concurrent diseases like CHD - 47%, sugar diabetes - 8 %, excessive weight - 12 %, osteochondrosis - 43%. Average body weight was 83.4 ± 1.2 kilos, body mass index was 29.3 kilos per sq.meter. Examination discovered deprivation of target organs, most frequently -

miocardial hypertrophy of left ventricle. 86% of patients had at least one of risk factors of cardiovascular diseases, 90% had ECG changes.

Monotherapy with quadropil caused reduction of systolic arterial blood pressure by 23.4% ($p < 0,001$), diastolic by 18.3% ($p < 0,001$), while general peripheral resistance reduced from $2508,64 \pm 165,7$ to $1689,03 \pm 117,82$ $\text{дин.с}^{-1}.\text{см}^5$ ($p < 0,001$). Number of patients whose blood pressure was stabilized by the end of study was (lower than 140/90 millimeters of mercury) 62%, generally positive antihypertensive effect was reached in 86% of patients (normalized and reduced blood pressure by 10% and more). Daily monitoring of 12 patients demonstrated reliable reduction of daily night and day arterial blood pressure, yet heart rate didn't show reliable changes.

Hypotensive effect was combined with improvement of patients' general health condition, decreased head aches, dizziness. Quadropil tolerance of 94.2% patients was good. Quadropil was canceled for one patient due to dry cough that appeared on third day, and for second one due to hives.

Control of laboratory blood indicators like level of general cholesterol, lipoproteins of high and low density, uric acid, sodium, potassium, sugar, creatinin, didn't demonstrate sufficient dynamics.

Thus, quadropil is an effective product for patients with arterial hypertension, improves haemodynamics, providing adequate reduction of arterial blood pressure during 24 hours and safety during its administration, good tolerance, and improves quality of life for patients with AH.

REVIEWS

PENAL PROGRAM SURVEYS REVIEW

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There is an increasing number of HIV infected persons and AIDS patients worldwide, as well as among prisoner population. In some countries about one third of all new revealed HIV cases have been registered in prisons. The diagnosis of HIV in correctional settings highlights the need for policy guidelines for testing, HIV education, prevention and treatment programs, and improved surveillance for HIV/AIDS and risk behaviors (1).

It is estimated that 25% of those living with HIV pass through correctional facilities each year (2). The HIV infection in inmate populations is higher than in the population as a whole over the world. Incarcerated populations represent from 15 to 30 percent of the registered HIV-infected people in many countries, of which the vast majority are young injecting drug users. Correctional facilities are often overcrowded, lacking adequate staffing and funding for many essential operations.

Prisons and especially pre-trial detention centers have high rates of turnover, and represent an environment where risk factors are frequent. These facilities can be foci where inmates have a high risk of being infected before releasing to community (3). Confirming this suggestion, authors of the investigation of injected drug users conducted by CDC field team derived that HIV-infectiveness is associated with patients' being in imprisonment settings (4). The seriousness of the problem of HIV/AIDS among incarcerated populations is reflected in the

confirmed AIDS case rate among prison inmates (0,52%), which is 4 times the rate in the US general population (0,13%) (5).

Prison inmates are severely affected by HIV/AIDS, largely owing to the high-risk behavior that they engage in prior to incarceration. Researchers and practitioners have admitted the importance of offering HIV prevention services in prison settings (6). The lifestyles of many inmates prior to incarceration include unprotected sexual intercourse, drug and alcohol abuse, poverty, homelessness, undereducation, and unemployment—all of which are associated with risk of HIV/AIDS. Wohl and colleagues found that among men with a history of incarceration, high-risk behaviors are more common in the community than during incarceration. Nevertheless, research with exoffenders supports the contention that high-risk behavior occurs inside prisons as well (7). Despite of it is clear that most of infections occurred in the community prior to incarceration, the lack of implementation of risk reduction programs in prison settings is a missed opportunity (2).

Nevertheless, the WHO advances the following positions (8):

1. Since penetrative sexual intercourse occurs, in prisons, even when prohibited, condoms should be made available to prisoners throughout their period of detention.
2. In countries where bleach is available to injecting drug users in the community, diluted bleach (e.g. sodium hypochlorite solution) or another effective veridical agent, together with specific detailed instructions on cleaning injecting equipment, should be made available in prisons housing injecting drug users or where tattooing or skin piercing occurs.
3. In countries where clean syringes and needles are made available to injecting drug users in the community, consideration should be given to providing clean injecting equipment during detention and on release to prisoners who request this.

Although the use of harm reduction strategies (e.g., condom and bleach availability) in correctional facilities is increasingly endorsed worldwide by WHO, many prison systems continue to offer only minimal endorsement for such policies and practices (9).

In contrast to when they were in the community, incarcerated individuals are logistically easier to reach with prevention and education programs; they are supposedly encountering fewer situations of risk; they are sometimes reevaluating their life choices; they have access to medical and mental health services for no cost; and they have fewer demands being made on their time. Nevertheless, systematically evaluated HIV prevention programs in correctional settings have been slow to develop over the past two decades. It has occurred for several reasons (6).

First, there is a duality and cultural divide between public health and corrections. The culture of corrections focuses on promoting the custody and security of inmates; among some correctional officials there is apathy toward inmates' health and well-being. Even when there is an interest in medical treatment and care, prevention services are often at the bottom of the list of priorities. Public health, on the other hand, holds its focus on primary, secondary, and tertiary prevention of disease. In the face of budget constraints and the existence of competing programs, it is clear how correctional officials may not consider HIV prevention programs to be important enough for funding, although public health professionals remain adamant in support of such programs.

Second, many prison officials are slow to embrace HIV prevention messages (the use of condoms, the use of sterile syringes etc.) that they perceive as directly contradicting policies that prohibit anal sex, condom use, and injection drug use in prisons. However, this concern can be addressed by delivering HIV prevention messages that increase knowledge and awareness surrounding HIV/AIDS in the context of discussions of postrelease high-risk behavior.

Third, there continues to be stigma associated with discussing HIV/AIDS, particularly in correctional settings where many HIV risk behaviors (injection drug use, unprotected anal intercourse, etc.) are disallowed. Inmates may fear that by expressing an open interest in learning

about HIV prevention strategies or requesting testing, they are openly admitting to engaging in homosexual or drug use behavior, which may cause others to think negatively of them. Moreover, inmates may fear being tested because of the stigma associated with having a positive test results. Confidentiality is very difficult to protect in a closed system such as a prison, which might prompt an inmate to choose to learn of his HIV serological status only after his release.

Fourth, many prison officials contend with a lack of resources for implementing HIV prevention programs even though there is an awareness that such programs are needed. Departments of corrections are facing budget cutbacks, which mean that “nonessential programming” such as HIV prevention programs are the first to be eliminated. Moreover, programs that interfere with security procedures may seem cumbersome to prison officials who are seeking solutions to budget shortfalls. Developing programs that consider the logistical constraints of correctional settings is therefore of the utmost importance.

There are some innovative HIV prevention/peer education programs that are being implemented in prison settings and certain recommendations for securing support for HIV prevention services in correctional settings (6). Under these programs departments of public health are delivering aid range from weekly new inmate orientation to describe the available HIV prevention service to prerelease health education sessions for inmates who are returning to the community. Some organizations are offering peer educator training to inmates in the area of HIV prevention for target both HIV-positive and HIV-negative inmates. Such programs offer an opportunity for health related organizations to build mutual relationships with correctional officials and medical staff and to implement the needed services in prisons without placing a burden on correctional budgets (10, 11, 12).

Prison affords a first-time opportunity to experience a complete medical examination as well as access to HIV prevention, treatment, and care by health providers. This demographic profile has prompted numerous authors to argue that incarceration offers an ideal opportunity for the delivery of health education programs and especially HIV prevention messages that focus on high-risk behaviors. (7, 13, 14, 15, 16, 17).

Given the legal mandates on prisons to provide inmates with health care of sufficient quality and standard, the potential for equity in access to HIV prevention services is greater in prison than in community (6). Some authors argue that for those infected with HIV, this is a benefit of prison life. These individuals tend to be poor, to lack formal education, to be unemployed prior to incarceration, and to have inadequate legal representation (18, 19). Obviously, the opportunities of penal system mentioned above, are desirable for persons of such populations.

However, the quality management measures should be an integral element of the strategy right from the start. Scientific survey plays an important role in this context. Epidemiological review studies as regards HIV should be an important basis for conceptions. In addition, it is also very important to scientifically observe potentially risky modes of behavior in society even before cases of infection become apparent, in order to take preventive action in time.

All recommendations relating to prevention strategy should fundamentally be made on the basis of empirical data. Empirical evaluation results and reliable systematized experience should guide today practice. The evaluation of the success of a national AIDS prevention program includes the examination of the current form and development of knowledge, attitudes, practices and behavior. A number of such surveys of various target groups have appeared last decade. Its evaluation has been conducted by interviews using especially developed questionnaires which include questions concerned epidemiology and HIV infection prevention, the personal attitude to the HIV/AIDS problem, the sex life of the respondents and the main sources of information about this issue (20).

The role of epidemiology in programs is to describe prison health and risk conditions. This data is used to inform the development of specialized educational materials for prison

context and to measure the effectiveness of program activities. This research should involve prisoners, prison workers (guards, health workers and administrators) (21).

Preventative education should be made available to both staff and inmates by regular and ongoing programs. Peer education should be researched, supported and resourced. Research which can give reliable indications of the prevalence and incidence of risk practices should be commenced immediately (22).

The education and prevention program for the containment of HIV infection among prisoners gives them an access to information on infection from risk behaviors. The first program strategy is a research into risk behaviors in the target population and current knowledge levels about HIV infection. The development and provision of information should be based upon the research outcomes.

Such investigation can reveal the existence of preconditions for a dramatic increase in HIV infection among inmates. These preconditions include the significant frequency of drug dependent behavior, acknowledged levels of intravenous drug use, needle sharing, and male-to-male/female-to-female situational sexual activity in prisons.

Prisons have reference points for conduct that are at variance to those which prevail in the community. In the absence of any serious research into the dynamics of the prison culture, the efficacy of medical interventions must be brought into question.

Community shouldn't be complacent about the seemingly small rate of infection currently evident within the prison system. Peculiarities of virus transmission together with the cultural imperative of the prisoner code that appears to legitimize risk behaviors should be sufficient to justify constant review and evaluation.

Factors such as the history of intravenous drug use by prisoners, along with needle and syringe sharing, and issues within the prison drug subculture coupled with the range of sexual transactions, either consensual, coercive or forced, which are apparently legitimized within the prison culture demand further investigation (23).

There are a number of studies regarding HIV/AIDS/STIs/Hepatitis knowledge, attitudes, practices and behavior (KAPB) issues which were implemented over the world by nowadays. The most of them concerned to general population, the teenagers, homosexuals and intravenous drug users. Excepting a few cases, they have been implemented on the general context of educational or/and prevention programs (24). Multiple studies have reported high-risk behaviors for HIV/AIDS in prison settings such as injecting drug use and sexual activity (25). There is a need for "... more information ... on the nature and level of risk activities within prisons" (26).

A numerous of surveys were implemented in many countries over the world. Their results suggest the HIV/STI/Hepatitis B and C risk behavior models are widespread. However, there are significant differences between needle sharing, sexual activities, and tattooing practices in correctional facilities of various regions and countries. For instance, research conducted in The Netherlands revealed that any use of heroin or cocaine during imprisonment was reported by 37% and 20% of inmates, respectively. No sharing of needles and syringes was reported. Only 1% of men and none of the women have reported the vaginal or anal sex. Contrary to findings from other countries, low levels of HIV risk behaviors occur among imprisoned drug injectors in the Netherlands. Intra-prison HIV preventive measures should be considered taking into account the nationally, regionally or locally varying conditions within the existing prisons (27).

Epidemiologic study carried out among 574 prisoners in the penitentiary center of Marseilles. 23% reported they had injected drugs (IDU) during imprisonment. The study shows that risk behaviors of HIV transmission are frequent among intravenous drug users, including during their incarceration. Study underlines the need to strengthen prevention programs in prisons (28).

It is stated that prison staff members have an informational and educational gaps regarding HIV infection, STIs and other communicable diseases. Aimed this problem, some educational programs were developed in Baltic countries. Target groups for these projects

became prison staff and inmates. Education programs were focused on health matters and prevention of communicable diseases, harm reduction and basic hygiene. Studies are foreseen as inquiries of staff and inmates awareness level of aspects relevant to training topics (HIV/AIDS, STIs, Hepatitis B and C prevention, drug addiction and harm reduction issues) before and after educational intervention (29, 30).

The region of Newly Independent States (NIS) is confronted with massive injecting drug use and a delayed introduction of the HIV epidemic. The persons at greatest risk and accounting for the bulk of newly acquired HIV infections in the NIS are injecting drug users. Sharing injecting equipment is widespread, risk perception low, safe-sex practice not common and targeted health interventions still in an early stage. HIV infection will easily spread from this group to the general population via sexual contacts. In recent years Russian prisons typical for NIS have experienced epidemics in HIV/AIDS. In the first half of 2001, 17,6% registered HIV was among prison inmates (31).

In Ukraine a large scale preventive and educational intervention is in run. A series of activities were conducted focusing on three pilot regions. The project was first carried out in Schitomir, Kiev, and Odessa, and then in a second phase in Dnepropetrovsk, Poltava, and Nikolajiv. KAPB studies were carried out among staff and inmates, along with regular epidemiological monitoring. This program started in 1997 and to be continued (32).

To support the development of prison HIV prevention mechanisms and to measure their effectiveness, Medecins Sans Frontieres (MSF) conducted independent research on prisoner risk behaviors. The quantitative, cross-sectional survey was designed as a baseline study using a Russian-language self-administered written questionnaire. Further surveys using the same methods and essentially the same instrument serve to monitor changes in knowledge, attitudes and behaviors in the prison environment over the course of the program. The survey instrument contained the following sections: demographics, medical history, HIV test history, drugs and related risks, sex and related risks, tattoos and related risks, knowledge about HIV/AIDS, attitude about HIV/AIDS, attitude about prevention measures, and health information sources. Variables used were of international standard translated into Russian or adapted to the country conditions. The sample came from 8 colony and two pre-trial facilities with frame of 15- to 30-year olds. 1044 people were surveyed. Analysis of respondents completed the questionnaire showed that 10% of them had sex in the prison and 13% of those having sex in prison had ever used a condom in prison. 26% had a tattoo made in prison with new needle only in 31%. 9% of surveyed had injected a drug in prison and 1% of surveyed began injecting in facility where incarcerated. 66% of prisoners pass on used injecting equipment to other inmates. Authors made following conclusions: despite limitations of self-report written data from prisoners, there is strong evidence that risks exist in surveyed prisons. Data of such survey describe the nature of risks and some characteristics of the prisoners undertaking them. These results inform and justify the development of targeted prevention mechanisms, thereby contributing to a healthier, less risky prison environment (33).

In other survey, 673 prisoners of 4 Russian male correctional facilities filled in self administered written questionnaires. According to answers, 36% of inmates have injected drugs during imprisonment and 10% of surveyed began injecting in prison. Strange injecting equipment was in sharing use in 50% of answered. Some inmates (up to 31%) reported having sex during incarceration, and condoms were used only in 37% of reported having sex in prison. Up to 49% of inmates made tattoos in prison surveyed, and only 37% of them indicated new needle use. Many prisoners gave incorrect answers regarding HIV/AIDS transmission modes. Inmates participated in this survey have behaviors related to HIV and other blood-transitive infections spreading risk. It is necessary to work on inmates' knowledge level enhancing concerning to HIV transmission modes and its prophylaxis methods. International researches showed that the prevalence rates of injecting drug use, sexual activities, tattooing and other risk practices are significantly high over the world (34).

In the spring of 2003 the survey of 500 inmates in 5 Karaganda region correctional settings was conducted. One of the research objectives was the study of HIV/Hepatitis C/STI transmission risk factors among inmates for preventive programs development and implementation. In the study course the prevalence assessment of behavioral models determining the HIV/Hepatitis C/STI infection risk (injected drug practices, sexual behavior, tattooing, shaving blades sharing) was implemented. It was stated by inmates themselves that 34% of prisoners have experienced the use of injected drugs in this prison and 48% of them have used common syringe. Also, 38% of male inmates have sex with men and 13% of them haven't use a condom. Shaving blades are in common use in 24%, and 11% of inmates have been tattooed in this setting. Authors concluded that injected drugs use and men-to-men contacts occur in the correctional settings. Awareness of inmates concerning to HIV transmission modes and preventive methods is remarkable high, but insufficient for behavior changes (35).

In Pavlodar region a similar survey of 439 inmates in 4 correctional settings was conducted. It was stated by inmates themselves that 35% of prisoners have experienced the use of injected drugs in this prison and 39% of them have used common syringe. Also, 47% of male inmates have sex with men. Shaving blades are in common use in 20%, and 26% of inmates have been tattooed in this setting (36).

The survey of 399 inmates in 3 South Kazakhstan region correctional settings was conducted. It was stated by inmates themselves that 41% of prisoners have experienced the use of injected drugs in this prison and 54% of them have used common syringe. Also, 22% of male inmates have sex with men and 10% of them never use a condom. Shaving blades are in common use in 34%, and 9% of inmates have been tattooed in this setting (37).

In the West Kazakhstan region the analogous survey of 200 inmates in 2 regional correctional settings was conducted. It was stated by inmates themselves that 19% of prisoners have experienced the use of injected drugs in this prison and 25% of them have used common syringe. Also, 25% of male inmates have sex with men and 4% of them never use a condom. Shaving blades are in common use in 22%, and 17% of inmates have been tattooed in this setting (38).

As it was shown above, further researches are needed to learn more about prison environmental factors related to HIV/STI/Hepatitis acquiring and matters harmful to inmates' health. Investigations listed earlier showed that knowledge of the male-to-male sexual activity, injecting equipment cleaning, and tattooing practices risks still needs certain improvement. Monitored trends in prison practices tell when the means are available for inmates to protect their or health, they will make certain efforts to use them. The results of these studies showed that informational materials and training of peer educators can be a simple and effective way to reach a group that is at high-risk for HIV that is difficult to reach. Also, training and presentations to inmates and prison staff will continue to keep knowledge and skills current active.

At the same time, there are not any noticeable KAPB surveys conducted in Asia, particularly in Central region. Indeed, The Asian Harm Reduction network, which consists of more than 500 organizations informs that there are no known KAP studies having been undertaken and such a study needs to be done to assess behavioral patterns. Further assessment and surveillance is required (39).

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HIV /AIDS AND STI IN SEXUAL BEHAVIORAL RISK GROUP

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Epidemiological research demonstrated found the possible various ways of HIV transmission (inject able drug intake, sexual, hospital, intrauterine, hem transfusions).

Official statistics indicates that in Kazakhstan HIV transmission occurs mainly through inject able drug intake (82%). Although transmission via sexual contact is significantly less (10%), it has an important impact to HIV/AIDS prevalence.

A vulnerable group in terms of HIV/AIDS and STI includes homosexual males (HM). Relevant research shows that after slight reduction during 1996-2000, there is a growth of new cases within HM in the majority of Western European countries [1], USA [2], Canada [3], and Australia [4].

We surveyed 312 HM who participated in the first cohort study that took place in the Republic of Kazakhstan. A questionnaire was developed with consideration of WHO recommendations [5] and Family Health International Guidelines on HIV Risk Behavioral Surveillance Surveys [6].

With an exception of one person, all respondents of survey had permanent residence. Majority of the respondents (81,1%) were born in Almaty and live there permanently since birth. Those new to the city (18,9%) 2,7% lived in Almaty less than a year, 6,4% - 1-3 years, 6,1% - 3-5 years, 3,7% - 5 and more.

The average age of respondents was 27 years old with a range from 14 to 52. The 20-29 years old group constituted 40,9% of the respondents, as largest group in age distribution. Group of underage respondents was 4%. The target group (15-24 old) for HIV prevention included 43.3% of respondents. Considering age-specific physiological features of involved HM, most of respondents could be considered as individuals with high sexual activity, and mature psychosexual orientations.

Respondents reportedly have quite high educational level: almost half of them (49%) have higher education (in the group of 24 and older – 83,1%), 33,3% - unfinished their higher education. Respondents who had professional secondary education were 15,1%. The rest (2,5%) were in high school.

The social status of respondents classify them as white-collars, except 14% that didn't indicate their social status. More than one third (37%) of respondents are high school or university students. The rest are involved in services sector.

Two thirds of the respondents (207) answered to the question on sexual relations with men during last six months. Only 8.7% indicated that they didn't have sexual relations with men during last six months. Number of partners during this period was distributed as follows: 1 – 38.7%, 2 – 12.7%, 3 – 11.2%, 4 – 3.7%, 5 – 8%, 6 – 11.2%, 7 – 4.8%. Very few respondents had more than 7 partners. In average a number of sexual partners tend to increase with increase of age. The higher numbers of partners were reported by respondent over 40 years old.

Answers to the questions on condom use during sexual interacts within last 6 months testify quite risky sexual behavior of respondents. Seventeen percent of the respondents never used condoms in sexual intercourse during last 6 months with male partners. Only 32.8% used condoms with female partners.

There are objective and subjective reasons for not using a condom during sexual intercourse. Analysis showed that they deliberately didn't use condom with commercial and non-commercial partners: 52.1% of respondents don't like to use condoms, 39.2% - don't consider it necessary, 7.2% didn't think about, 15.6% - didn't have condom with them. Objections from partners were in 14.1% of cases. High cost of condom was mentioned as a barrier by 1.9% respondents. Don't know how to use condom - 4.2%. Other reasons - 1.1%.

It is supposed that the most effective HIV and STI prevention during anal sex between men is a use of condom combined with lubricants. Within 48.4% of respondents that use it this way, 81% of them prefer water-based lubricants. However, 47.7% use condoms with oil-based lubricants produced from anything available? Such as Vaseline, hair styling gel, hand cream, baby oil, butter, all of these lubricants might damage latex condoms and make them permeable for bacteria and viruses, including HIV. It is reported that 38% of respondents use spittle as a lubricant.

Thus, despite quite high educational level and social status of this HM group sexual behavior knowledge level remains very low. This group can be characterized by intensive sexual life and frequent rotation of partners. At the same time half of respondents use condoms occasionally or don't use them at all during sexual intercourse with men. Ratio of condom use with women is relatively higher, but still is not high enough. Condoms are not used during oral sexual intercourse. Considering a fact 56 men of 75 ones that answered this question, had sexual contacts not only with men, but also with women, they might become a reservoir for infection dissemination within whole population. Portion of men that practice commercial sex is quite low; however it might be reflection of the fact that HM doesn't want to reveal this issue. Only one third of HM use condoms every time or almost every time in commercial sexual contacts. Major reason of not using condom is subjective, and it is related to HM preferences.