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ANALYSIS OF THE SKILLS DEVELOPMENT TRAININGS PERFORMANCE OF THE PHYSICIANS OF UZBEKISTAN

Summary. Quick changes in medical practice require constant skills development among the physicians.

Aim of the work: to study the situation in the area of skills development of the physicians and their professional categories in the Republic of Uzbekistan.

Materials and methods. Performance indicators of the activities of medical facilities in the Republic of Uzbekistan served as sources for the study, statistical and mathematic methods were used. Retrospective analysis of the indicators of medical personnel sufficiency was conducted, data of skills development programs and the professional categories in Uzbekistan for the period of 2010-2012 was analysed.

Results and discussion. Data analysis of the sufficiency of medical personnel in Uzbekistan has shown that over the last 3 years there is a decrease of the number of physicians both in absolute numbers and in ratio per 10 thousand people.

In 2012 there were 34814 (48%) of physicians with the first qualification category (in 2010 this indicator was 39966 or 55%). At the same time the number of physicians with the second qualification category increases in absolute terms.

Conclusions. Decrease in the number of physicians with the first qualification category is related in our opinion to the increase of the number of physicians with the work experience of less than 5 years and stricter requirements to attestation, which requires further study.

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SOLIDARY RESPONSIBILITY FOR HEALTH PROTECTION. WHAT INFLUENCES THE BEHAVIOR AND ATTITUDE OF A PERSON TO OWN HEALTH?

Summary. Behavioral and preventive medicine attempts to overcome the relative helplessness of traditional biomedicine in treating chronic diseases and decreasing the cost of treatment in medical institutions targeted on biomedical paradigm by means of calling for responsibility of each person for own lifestyle [1]. Targeting the individual risk factors became the foundation for individual «lifestyle» approach to improving health [2].

The aim of present study was to identify some factors, which influence the development of responsibility for own health.

Method of study was survey of 572 respondents.

The results of the study have shown that health-preserving behavior is not always the result of knowledge about health and views on preserving health. A motivational factor for caring for

one's health is still the fact of lack of health, and the main obstacles are the lack of will power and lack of wish to care for one's health. Obstacles in developing health-preserving behavior include social determinants, such as need to work in adverse work environment, working when sick, insufficient funds. The relation between social status, education level, age and behavior can be manifested by the level of knowledge in the matters of preserving and improving health and by the level of self-criticism and self-assessment.

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BEHAVIORAL STUDY OF PATIENTS WITH ACUTE RESPIRATORY VIRAL INFECTIONS AND INFLUENZA, TALDYKORGAN, ALMATY PROVICE, KAZAKHSTAN, 2012-2013

Key words: *influenza-like sickness, acute respiratory viral infections, ARVI, patient behavior*

Abstract. We studied the awareness, ability to recognize the symptoms and actions of patients with acute respiratory viral infection (ARVI). This prospective study covered the influenza season between the 50th week of season 2012, and 16th week of season 2013, in Taldykorgan, Kazakhstan.

The survey included 226 participants ages 18 and older selected using random sampling. One of the two questionnaires used in the survey for a one-time survey contained 38 questions to assess the respondents' knowledge of ARVI and influenza, and the second survey with 7 questions to assess the behavior at the onset of symptoms. The second questionnaire was administered weekly for 20 weeks following the initial survey. Results were further analyzed using Epi info 2000 v3.3.2 software.

To determine the baseline incidence of ARVI, respondents were asked about the average number of ARVI they experience per year. Majority of respondents, 163 (72%) have had ARVI 1-2 times a year. During the weekly survey which continued for 20 weeks during the 2012-2013 epidemic season, 133 (62%) respondents reported ARVI symptoms a total of 253 times, which means that some patients were sick more than once. 98% of respondents took self-prescribed medication. Rheum (75%), headache (66%), fever (68%) and cough (58%) were the main symptoms by which the respondents identified an ARVI. 32% of respondents with ARVI sought medical care. Proportion of people seeking care in the age group of 65+ years of age comprised 43%, and 81% among children. 27 people (12%) were vaccinated against influenza one year prior to the survey. Most participants (79%) were aware that influenza is caused by the virus, 69% believed that the use of masks was an effective means to prevent influenza, 61% of respondents were aware of the dangers of unjustified use of antibiotics.

Uptake of adults with ARVI and influenza in care remains low compared to children. The use of self-prescribed medications and underestimation of risks associated with influenza explains the lack of health-care seeking among the population.

Introduction

Since 2008, Kazakhstan implemented sentinel survesickance (SS) for influenza-like sickness (ILI) and severe acute respiratory infections (SARI). Review of data collected since 2008 in 7 sentinel regions of Kazakhstan identified that

patients with ARVI, ILI and SARI are predominantly children, particularly children under 5 [1]. There were virtually no patients with ARVI, ILI, or SARI in the age group of 65 and older. Based on this data, we decided to undertake the study to determine the factors that influence the behaviors of individuals over 18 years of age when they contract ARVI or influenza.

The study aimed to assess the ability of patients to identify ARVI symptoms, typical actions taken upon identification of a respiratory disease, as well as adherence of population in different age groups to influenza vaccination. In her article, Yakusheva Ye. Ye. et al [2] described the attitude of population towards preventive vaccination, and influence of various factors on the decision to vaccinate. According to her research, one of the main reasons influencing the decision to vaccinate was strong recommendation of a pediatrician (54%); 80% of respondents were ready to act upon information if the doctor was convincing and persistent. However, the article by Yaku-

sheva Ye. Ye. et al [2] gives no specific reason for the low uptake of vaccination against influenza. Another article by Klenov N. V. describes the assessment of children's awareness on prevention of influenza and ARVI, as well as a their adherence to the preventive measures. The authors found that sick students of secondary schools continued to attend classes, 54% did not fulfsick doctors' prescription, and the vast majority of survey participants systematically did not comply with influenza and ARVI prevention practices [3]. That study included children only. However, in our study, the subject of interest were adults, and especially those 65 of age and older, their actions in case of detecting ARVI symptoms, and their knowledge about influenza and its prevention.

Materials and methods

Sample size. We conducted a prospective study among the citizens of Taldykorgan 18 years of age and older. The sample was calculated using the following formula [4]:

$$n = \frac{t^2 \times p(1-p)}{m^2}$$

where:

n = sample size
t = confidence level at 90% (the default value is 1.645)
p = estimated proportion (accepted value is 0.5)
m = bias at 5% (standard value is 0.05)

Design effect was 2, based on the following calculations:

$$D_{eff} = 1 + \delta (n - 1)$$

where: D_{eff} = design effect, δ = coefficient of intragroup correlation (approximately 0.2, **n** = average cluster size (the value is 6)

Selection of respondents. The sample size required for this study comprised 210 interviewees. Given the potential losses, we invited 250 study subjects. Selection of respondents was based on the method of systematic random sampling. The sampling step (interval) was calculated based on the catchment population of the adult outpatient clinic, and the required sample size. The individual study participants were selected using the sampling interval and the lists of the catchment population.

According to the dynamic calculation, the total number of the catchment population of the outpatient clinic ages 18 and older was 90,974 [5], which is almost the entire adult population of Taldykorgan, since there is only one adult outpatient clinic in the town. In order to determine the study interval, the total number of the catchment population was divided by the calculated sample size as follows: 90,974/250 = 363.8. To simplify the calculations, we rounded up the sampling interval to 360, thus the study

interval was 360 people, that is, each 360-th individual from the catchment population was invited to participated in the study. Further on, based on the complete list of population aged 18+ obtained from the outpatient clinic, every 360-th citizen of Taldykorgan was selected for the study and the final list of 250 study participants was prepared, including their demographic data.

Data collection

11 trained epidemiologists working in the Department of Sanitary Survesickance for Almaty region were appointed as interviewers, each interviewer having to interview 20-25 respondents.

Two questionnaires were used to collect data from the respondents, the first of which was used for the single-time survey, and the second – for the weekly interview from November, 2012 to April, 2013, during 20 weeks.

Initial interview

In the beginning of the influenza season (starting from week 50 of 2012), each interviewer visited respondents' places of residence, and conducted the first interview at home. Only people who gave their consent to participate in the survey were interviewed. In case of refusal, the next person on the list was visited. The consent was given verbally. 226 respondents participated in the first survey.

The questionnaire used for the first survey contained 38 questions on people's demographics (age, sex), education, behavior in case of ARVI symptoms, knowledge of symptoms and agents of ARVI and influenza, prevention, treatment, frequency of seeking medical care, number of contacts, actions taken in case of sickness in children or elderly family members, immunization status, administration of antibiotics, etc. Each initial interview took approximately 20-25 minutes. Answers were recorded on paper forms, and then entered into the Epi Info electronic database.

Survey using the second questionnaire

After the first interview, 8 respondents discontinued their participation for different reasons. As a result of that, the weekly survey included only 218 people. The remaining respondents were rewarded with automatic thermometers worth USD2 each for participating in the study. Interviewers agreed on their weekly schedule for follow-up telephone calls with participants, to ensure convenient systematic interviewing of each respondent during the complete influenza season (from week 50, 2012 to week 16, 2013).

Further on, the interviewers contacted the respondents by telephone every week, for 20 weeks to ask questions from the second questionnaire regarding the symptoms that may have appeared since the last call. The questionnaire included the following questions: whether the person became sick with an ARVI since the last call; symptoms; whether any medical care was sought, what kind of treatment was administered; did their lifestyle change during the period of sickness (whether they stayed at home, wore a surgical mask, how often washed their hands, etc.). The survey was conducted using the ground line and mobile phones at the time convenient for the participant.

The ARVI incidence rates from routine survesickance of population living in the study area were obtained from the sentinel survesickance database (on-line), containing routine and sentinel survesickance information.

Results

Our study aimed to study the behavior of adult population above 18 years of age at the onset of influenza or ARVI symptoms. The survey consisted of two stages. The first survey was performed in the beginning of the influenza season (week 50, 2012), with interviewers visiting respondents at their place of residence and conducting the first interview at their homes. The objective was to determine the knowledge of symptoms of influenza and ARVI, and the actions taken in the past year when such symptoms occurred.

The first survey included 226 people, of which 80 were men, and 146 – women. Age of participants ranged from 18 to 84. 69% of respondents were in the age group of 30-64. Only 9% of participants were people above 65.

After the first interview, 8 respondents discontinued their participation for different reasons. Eventually, during the 20 weeks between December 2012 and April 2013, 218 responded were interviewed weekly, 4,360 times in total.

Incidence rate

During the first interview, the respondents were asked how often do they get sick with ARVI. Answers of respondents to the question "How many times a year do you have an ARVI?" distributed as follows: 1 or 2 times a year – 163 (72%), 3 to 5 times a year – 20 (9%), 6-10 times a year – 2 (1%), more than 10 times a year – 1 (0.4%), 38 reported never being sick (17%), and 2 (1%) respondents answered that they don't know. Thus, of the 226 respondents, 186 had ARVI every year (82% of 226).

111 (49%) respondents responded "yes" to the next question concerning the last epidemic season of 2011-2012, which was "Were you sick last year?".

In course of weekly surveys which continued for 20 weeks of 2012-2013 epidemic season, 133 (62%) respondents had ARVI symptoms in 253 cases, which means that some of the participants were sick more than once.

Health care seeking behavior

When people who reported having ARVI every year were asked "Do you seek medical care with ARVI symptoms at all", 33% (61/186) of respondents said "yes". In the 2011-2012 epidemic season, 36 of 111 respondents (32%) who reported having ARVI last year sought medical assistance. During the weekly survey in the season of 2012-2013, only in 27 of 253 cases (11%) patients sought medical help.

66% (117/178) were theoretically prepared to treat themselves at home. In the 2011-2012 epidemic season, 67% (73/109) of respondents treated themselves. During the weekly survey in the 2012-2013 epidemic season, 83% (133/160) of respondents treated themselves (see Table 1).

Despite the apparent differences in respondents' answers on medications that they took as prescribed by a doctor, and self-prescribed, there was no statistically significant difference between the responses. It is clear that the percentage of antibiotics in doctor prescriptions is fairly high – 36%. The number of respondents who used self-prescribed antibiotics is high as well – 22% (see Table 1). Percentage of vitamins (17%) and antiviral drugs (19%) in doctor prescriptions was low. Very few respondents used self-prescribed vitamins at the onset of ARVI symptoms.

Grounds to use medications						
Type of medicine	doctor-prescribed (n=36)	%	self-prescribed (n=73)	%	Total (n=109)	%
Antipyretic	27	75%	61	84%	88	81%
Cold medicines	21	58%	39	53%	60	55%
Painkillers	11	31%	29	40%	40	37%
Cough medicines	10	28%	23	32%	33	30%
Antibiotics	13	36%	16	22%	29	27%
Antivirals	7	19%	12	16%	19	17%
Vitamins	6	17%	10	14%	16	15%

Table 1 – *Types of medications used by the patients (n=109) in the 2011-2012 epidemic season (P> 0.05)*

Vaccination status

The first questionnaire included questions on influenza vaccination to determine the respondents' attitudes towards vaccination as such and incidence rates among vaccinat-

ed persons (see Table 2, Figure 1). We were able to collect data on vaccination for the previous 2011-2012 season, since the survey was performed in the beginning of the season 2012-2013.
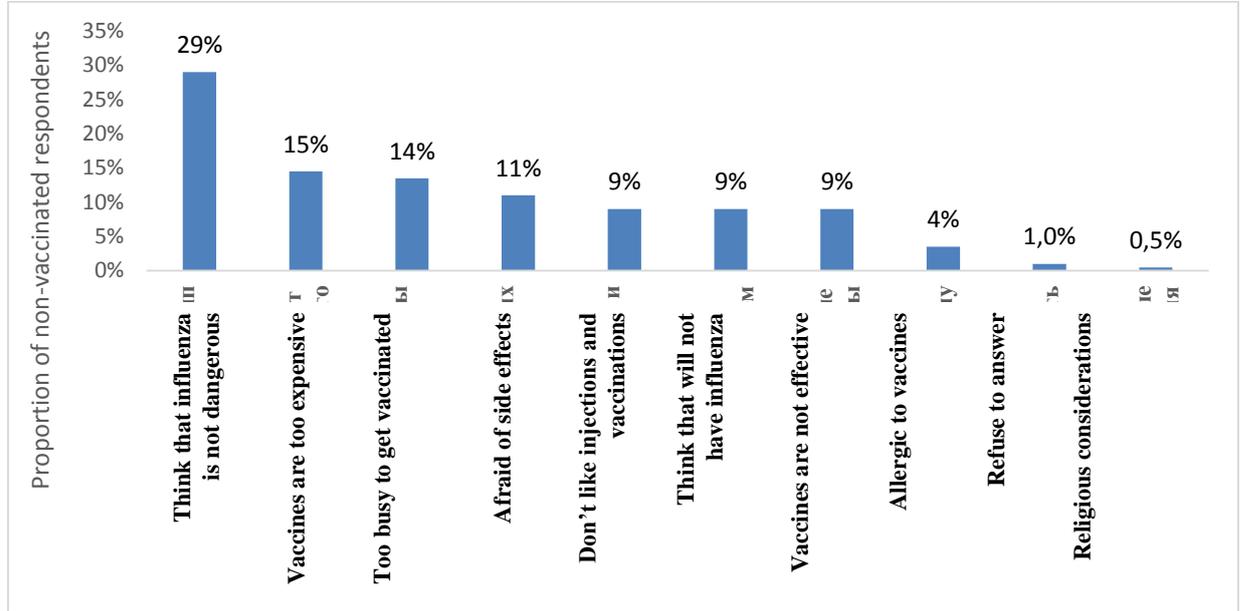

Figure 1 – *Reasons given by respondents for not vaccinating in 2011-2012 epidemic season, n=199*

There were several reasons given by respondents as to why they wouldn't get vaccinated against influenza, among which 29% thought that influenza was not dangerous, 14% did not have time to get vaccinated, 9% thought they did not have influenza.

It was hard to estimate a statistically significant difference in the incidence of ARVI

between those vaccinated and not vaccinated against influenza. First, ARVI may be caused by various respiratory viruses, and second, the survey could not help us determine when the respondents had the ARVI whether it was during the period of active influenza circulation or not.

Respondent's status	Vaccinated	Not vaccinated
Did get sick	17	94
Did not get sick	10	105
Total	27	199

Table 2 – *Immunization status of respondents vaccinated in 2011, and the ARVI incidence in the 2011-2012 epidemic season (p> 0.05)*

During the first survey, we collected data on children that live with the respondents and asked parents about the incidence of ARVI in their children during the epidemiological season of 2011-2012, and seeking

medical care for them. In 52 families, 86 children had ARVI (Figure 2). Parents of sick children have sought medical care in 81% of cases, which was 2.5 times greater than among adults with ARVI symptoms.
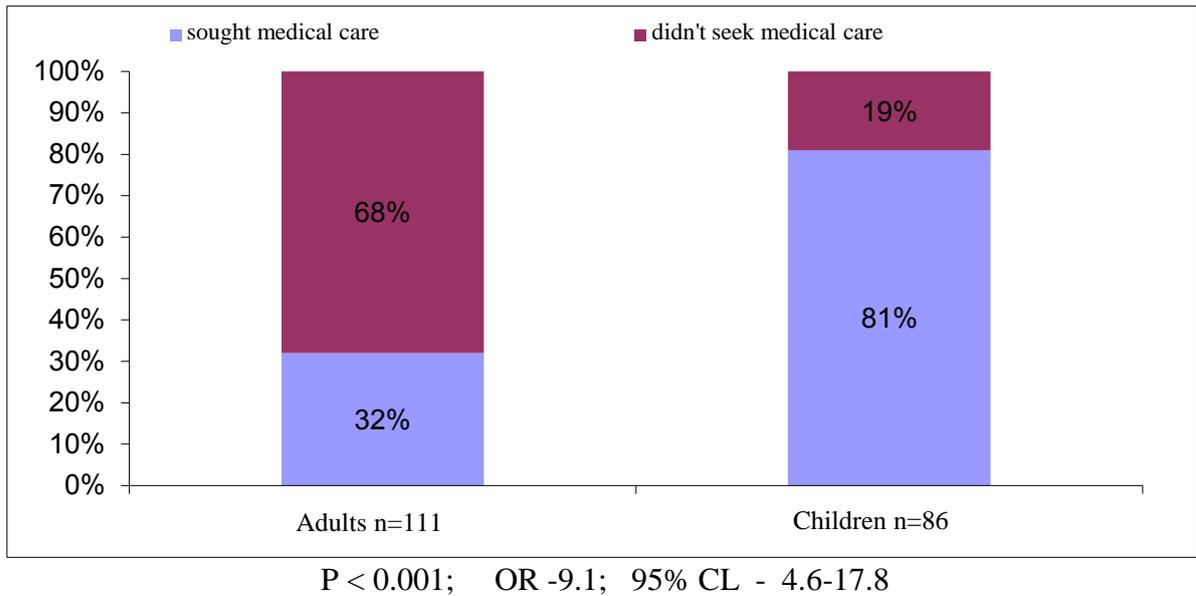
P < 0.001;   OR -9.1; 95% CL - 4.6-17.8

Figure 2 – Seeking medical care of adults and children in 2011-2012 epidemic season

In the 2012-2013 epidemic season, the ARVI incidence among the respondents (253 cases) and ARVI (1729 cases) and ILI (181 cases) incidence among the city residents were calculated and distributed by week. The incidence of ARVI among the respondents was from 2 to 10 times greater than the reported incidence among citizens residing in the area where the study was conducted (Figure 3).
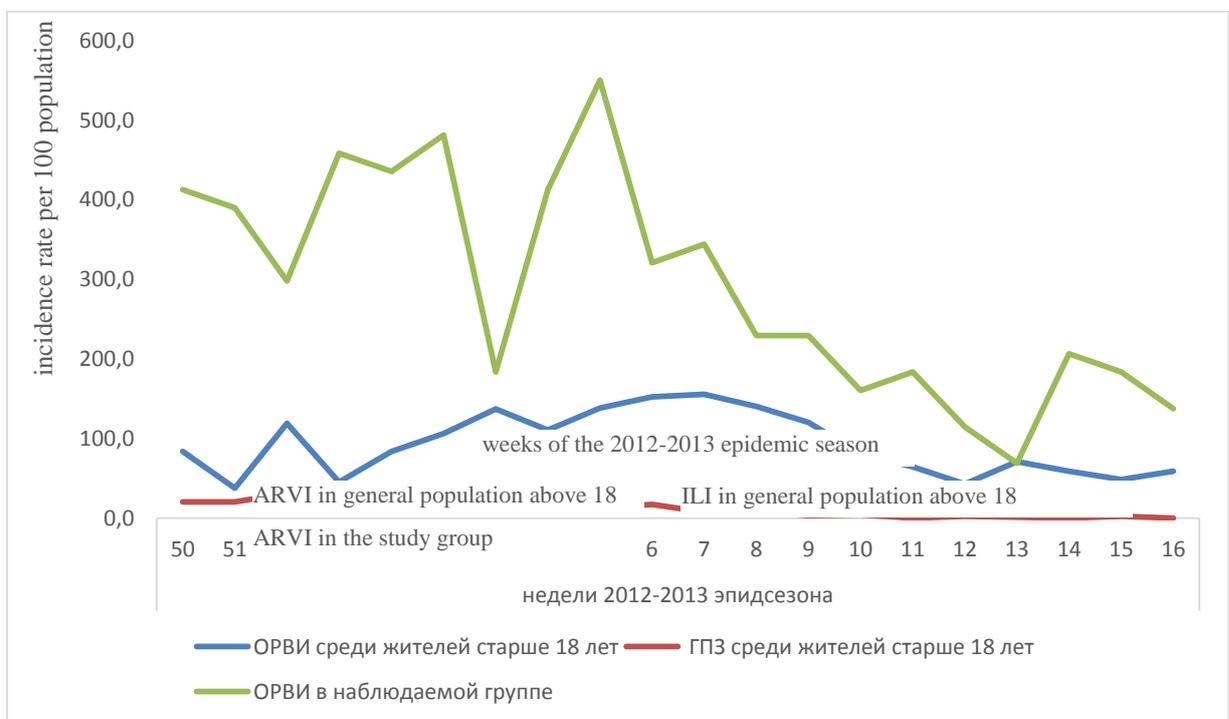

Figure 3 – ARVI and ILI incidence in the study group and among the general population in 2012-2013 epidemic season

During the first survey, 168 (74%) of respondents reported staying at home while sick with the ARVI, however, the weekly survey revealed that in fact when they were sick only 28 (11% of 253 cases) of patients did not attend public places.

We also identified the knowledge about influenza and prevention measures in the respondents we interviewed. 226 of the original respondents, i.e. 79%, knew that influenza was caused by a virus, 61% were aware of the potential risks of excessive use of antibiotics, and 69% knew about the effectiveness of medical masks in avoiding influenza infection. This knowledge did not dependent on the level of education of the respondents, as there were no significant differences in answers to the above questions, that could be attributed to the level of education.

Discussion

We did not find any behavioral studies on influenza and ARVI epidemiology in Central Asia. We believe it results from the complexity of methods used to study behavioral factors, the need to develop a special questionnaire, select an appropriate representative sample, and obtain an informed consent of the participant.

Adults prefer to resort to self-treatment, without seeking any medical care. The rare health-care seeking behavior in adults, and on the contrary, a high uptake of children in care can be attributed to the fact that adults are more regardful to the health of their children.

The low vaccination coverage, as shown by our study, is attributed to underestimation of the risks posed by influenza, indicating the lack of serious attitude towards the disease. Some respondents did not vaccinate due to the high cost of vaccine. In Kazakhstan, free annual routine influenza vaccination is available to certain groups of population (health care workers, children in orphanages, children who frequently get sick, etc.), but almost all adults (except for health care workers and staff of elderly homes) are not included in this group.

Ignorance of respondents about the influenza virus, the effectiveness of the use of masks, about the dangers of antibiotics and insignificant difference in this knowledge depending on the level of education show a low public awareness. Despite the apparent differences in answers of respondents on what medicines they took as prescribed by a doctor, and what were self-prescribed, the survey of what treatment they used last year in the 2011-2012 season did not reveal any statistically significant difference between the responses. The study showed that the percentage of antibiotics in doctor prescriptions is fairly high – 36%. The number of respondents who used self-prescribed antibiotics is high as well – 22% (see Table 1). Percentage of vitamins (17%) and antivirals (19%) in doctor prescriptions was low. Very few respondents used self-prescribed vitamins at the onset of ARVI symptoms.

Majority of sick people continued attending public places while being sick, thus representing a source of virus infection.

When people who reported having ARVI every year were asked "Do you seek medical care with ARVI symptoms at all", 33% (61/186) of respondents responded "yes". In the 2011-2012 epidemic season, 36 of 111 respondents (32%) who reported having ARVI last year sought medical assistance. During the weekly survey in 2012-2013 season, only in 27 of 253 cases (11%) patients sought medical help. Comparison of the incidence rates in the study group and the incidence rates in the general population showed that the incidence rate among the respondents is 2-10 times higher. Our conclusion is that this is caused by underreporting of ARVI cases in health care system, as the data collection is passive, only based on the patients who seek care. The active survesickance where data were collected by interviewers on a weekly basis revealed the true picture of ARVI incidence in population. These data demonstrated that adults rarely seek medical care.

One of the objectives of the study was to find out the reason for the low health-care seeking in the age group of 65+, according to the sentinel and routine survesickance data. Eventually we found out, that only 7% of the catchment population served by the clinic was elderly. Only 9% of participants in the study were above 65 years of age, and of the 16 elderly people who did become sick, only 7 (43%) sought medical care at a later date. Another contributor to this situation is that as of 2012, the average life expectancy in Kazakhstan is 69 and half years.

Conclusions

Behavior of people plays a significant role in the epidemiological control of influenza and ARVI. People with influenza and ARVI continue to attend public places, do not use protective masks, do not visit doctors, tend to use self-prescribed medicines, have insufficient knowledge of the causative agents for these infections, and (regardless of their level of education), underestimate the risk of influenza. Majority of respondents do not see the need to be vaccinated against influenza. What is particularly disturbing is the behavior of elderly, who can have serious health complications due to influenza or ARVI.

This behavioral study revealed the significant gaps in outreach and awareness programs, and enabled identification of targeted measures for elimination thereof.

References

1. Kuatbayeva A., Kapsalamova S. B., *Results of Sentinel Survesickance of Influenza and Acute Respiratory Virus Infections in the 2009 - 2010 Epidemiological Season in the Republic of Kazakhstan*. The XIII International Symposium on Respiratory Viral Infections, Rome, Italy, 13–16 March 2011.

2. Yakusheva Ye. Ye., Borisova T.A., Demyanenko P. N., *Influenza incidence and parents' attitude to vaccination*. Northern State Medical University Newsletter 2 - 2009 (Issue XXIII)

3. Klenov M.V., *Awareness of children and their adherence to primary prevention measures against influenza and ARVI*. Vestnik Roszdravnadzora. 2009; 5, 61:001.92

4. Michael B. Gregg. *Field Epidemiology*. Second edition, 2002, p 207.

5. The official administrative electronic database "Register of catchment population", Department of Health of Almaty province, town of Taldykorgan.

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CLINICAL EPIDEMIOLOGICAL ASPECTS OF PSORIASIS IN KYRGYZ REPUBLIC

Summary. The work presents clinical epidemiologic aspects of psoriasis in Kyrgyz Republic.

In course of studying the psoriasis patients, who came to get medical care in the Republican center for dermatology and STDs (RCDS) of the Ministry of healthcare of Kyrgyz Republic growth trend was noticed in this kind of dermatitis. In 2012-2013 489 patients received in-patient treatment for psoriasis in RCDS, of them 336 (68,7%) male and 153 (31,3%) female in the age group from 5 to 74. Analysis of the age characteristics of the psoriasis patients has shown that the disease was more frequently registered among the age group of 21 to 50 (65,2%). No differences in occurrence were identified based on gender in the age group of 21-60 years. In the age groups from 1 to 20 and over 70 female population prevailed. In the age group of 61-70 the disease was 2,7 times more frequent among male. Most frequently the patients were hospitalized having vulgar psoriasis, which amounted to 71,6%. Psoriasis exudativa and eritrodermic psoriasis were equally frequent (8,6% and 7,8%, respectively), same for psoriasis arthropica and von Zumbusch pustular psoriasis (5,7% and 5,5%, respectively) (p>0,05). Of the factors triggering psoriasis development and recurrence most common were flu diseases and stress. The biggest share of the co-pathology was taken by the gastric organs diseases (67,3%) and ENT-organs (58,4%).

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ASSESSMENT OF AWARENESS LEVELS ABOUT TUBERCULOSIS AMONG THE STUDENTS OF 8-11 GRADES IN SCHOOLS OF ALMATY

Summary. Raising medical literacy plays an important role among children and adolescents. Primary medical care facilities play an important role in conducting prevention activities, raising awareness in medical matters among children and adolescents. In general, awareness of the matters of tuberculosis among students of the 8-9 grades can be assessed as high, overwhelming majority of the children have good understanding of the matters of transmission ways – i.e. 74,24 % (±3,81), symptoms – 73,48% (±3,84), and actions in case of tuberculosis signs. At the same time there are some misconceptions, for instance 28,03% (±3,91) of the students mentioned sexual transmission. It is necessary to translate and adopt the questionnaire in state language; to expand the survey sites, which will enable assessing the difference between the students in different areas of the city with various social-economical background, and will provide the opportunity to cover a greater target group with the results.

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PECULIARITIES OF EPIDEMIOLOGIC SURVEILLANCE OF MEASLES ON THE CURRENT STAGE IN ALMATY

Key words: measles, morbidity, epidemiologic surveillance, elimination program.

Summary. Implementation of the Local instances of measles program lead to significant decrease in recorded cases by 2013 in the Republic of Kazakhstan, including Almaty. Main reasons for growth of morbidity in Almaty in 2014 were caused by accumulation of measles susceptible population, as a result of transfer of measles from other regions of the country. In order to conduct activities to eliminate measles and rubella on the territory of Kazakhstan, an "Action plan for elimination of measles, rubella and prevention of congenital rubella syndrome" was adopted in 2014; its implementation was aimed at achieving target indicators for epidemiologic surveillance and stabilizing the epidemiologic situation.

Currently the world is at the stage of global measles elimination, which is planned to be finalized by 2020,as a XXI century task within the framework of the WHO program «Health for all». [1,4]. In order to achieve this goal, "eliminating measles" is only an intermediate stage, on which there should be no circulation of measles virus on some geographic territory for not less than 12

months against well-functioning epidemiological surveillance system. According to definition of the WHO, the criterion, which confirms measles elimination is the morbidity ratio of no more than 0,1 per 100 thousand people. [1,3].

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PROJECT RISKS AS THE FOUNDATION FOR SUCCESSFUL PROJECT DESIGN

Summary. Project risks as the foundation for successful project design. Among various situations of uncertainty one distinguishes the risk events and situations of uncertainty.

Uncertainty related to the possibility of adverse situations realizations in course of the project and consequences resulting from them, is characterized by the concept of risk.

Risk factors, lack of precision and completeness of the project should be accounted for in calculating the efficiency, if the project results can differ depending on the conditions of implementation.

The significance of the fact that risk might exert both negative and positive influence on the project is emphasized, in other words, can improve qualitative and quantitative characteristics of the final project goals, therefore, one can identify negative risks, positive risks and unforeseen circumstances.

In order to account for uncertainty factors in assessing project efficiency information is used on conditions of project implementation, including the data not manifested in the form of probabilities. At the same time mitigation of risks can be used.

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SANITARY STATE OF AUEZOV DISTRICT BOARDING SCHOOLS AND SOME ISSUES OF THE SANITARY-EPIDEMIOLOGIC MONITORING ORGANIZATION

Summary. Ensuring health of young generation is a task of utmost importance for the state. At the same time, many researchers notice high prevalence of adverse changes among the health condition of children and adolescents. Among the most significant factors influencing the health of the students are conditions of schooling, nutrition etc. At the same time there are not enough studies done to identify the conditions of staying in a boarding school and special schools, and there are only few such studies in Kazakhstan. However, under the conditions of reform in sani-

tary-epidemiological service, the problem can not be considered separately of the level and quality of sanitary-epidemiologic monitoring in such organizations. The aim of the study is to provide general characteristics for the condition and organization of the sanitary-epidemiologic monitoring in the boarding schools of Auezov district of Almaty. There are 8 institutions of this type on its territory, which is a third of the total number of boarding schools in the city, and the number of students there comprises 25% of the total city school student population.

Primary data included analysis of the documentation and statistical repots of the healthcare department and Department of the state sanitary epidemiological surveillance committee of Almaty city, Division of the Department of the state sanitary epidemiological surveillance committee for Auezov district, reports of the State sanitary-epidemiologic expertise center of Almaty for 2011-2013. The data gathered was systemized and analysed statistically.

For instance, it was identified that the square area of the territory of a boarding school per student ratio was in compliance only in one case. Excessive density of student population was identified in boarding schools compared to designed numbers. During scheduled inspections factual attendance was not identified, neither was intensity of electro-magnetic fields in computer rooms, effectiveness of ventilation systems. Some boarding schools did not conduct the enriching of food with vitamin C. Energy value of food in boarding schools of the district was out of established ranges in almost one in three samples; some cases of disproportion in proteins, fats and hydrocarbons content were identified in the food courses. Some violations were identified in the matters of developing the daily schedule, and requirements for the leaning process.

Based on the abovementioned and high sanitary-hygienic significance of the conditions in boarding schools, in our opinion decrease of the frequency of inspections in boarding schools is not justified. Taking into account high medical and therefore social role of children's health protection and compliance of the sanitary-hygienic and sanitary-epidemiologic conditions in boarding schools with requirements it is deemed necessary to develop and adopt target norms for organizing control process for such and similar educational institutions.

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INVESTIGTION OF THE ACUTE INTESTINAL INFECTION OUTBRAKE AFTER THE WEDDING PARTY IN EAST-KAZAKHSTAN REGION, UST-KAMENOGORSK, 2013

Summary. On 20 April 2013, 25 people were hospitalized to the infection department of the Ust-Kamenogorsk city of the East-Kazakhstan region (hereinafter referred to as the city) with the symptoms of acute intestinal infection of medium severity, manifested in multiple diarrhea, vomiting, elevated temperature, intoxication and stomach aches. The patients lived in different parts of the city, but they were all present at a wedding party in one of the restaurants of the city.

After receiving information about registering group outbreak, decision was made to conduct epidemiologic investigation immediately and take comprehensive counter-epidemic measures.

Acute intestinal infections take second place in prevalence among infections diseases in Kazakhstan. Over the last years there is a decrease in the number of registered morbidity in Kazakhstan from 134,99 per 100 thousand in 2010 (21 867 cases) to 99,5 per 100 thousand in 2012 (16 659 cases). [1]. At the same time, on an annual basis 6-10 outbreaks of food-related intestinal infections are registered in Kazakhstan (with the total number of victims up to 300 cases), often etiological agent is salmonella [2].

Salmonella is a type of bacteria, which can exist in external environment for a long time; they also live in intestines of humans and animals. When infected, the following is usually observed: quick increase of temperature, stomachaches, diarrhea, nausea, and sometimes vomiting. Incubation period is 6-72 hours (usually 12-36 hours) after infection; length of the disease is 2 - 7 days [3,4].

The main source of salmonella infection for people are food items, less frequently – diseased animals; in individual cases source of infection can be another human (patient or carrier of the bacteria). Infection of humans usually happens by consuming contaminated food products, usually animal products (meat and meat products, milk, eggs). The reasons for contamination may be improper processing during slaughter, violation of the storage and preparation requirements (contact of cooked and raw products, insufficient thermal processing of food products prior to consumption etc.). Preventive activities against salmonella, as well as other food poisonings include veterinary-sanitary surveillance during slaughter and processing of the meat; compliance with the sanitary requirements during preparation, storage and sale of food items; timely medical examinations of the people, working in the catering industries, sale, testing them for being salmonella carriers [3,4].

The aim of the present research was to identify the actions to prevent similar situations from happening in the future. In order to achieve these goals, the following objectives were identified: to describe the outbreak using criteria of territorial and temporal spread, to describe infected persons, to identify the source and infection transmission ways.