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THE ORGANIZATION OF STOMATOLOGICAL AID TO CHILDREN IN UKRAINE IN 2013

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Purpose: to give the characteristics of the state of system, staff potential and the level of stomatological aid to children in Ukraine in 2013.

Materials and methods. The forms of state statistical reports, the data of market reviews, the materials, presented in the reference books of the Center of Medical Statistics of the MoH of Ukraine, the normative documents has been analyzed. The main methods of medical statistics are used.

Results. Stomatological aid to children of Ukraine was given in 1356 healthcare facilities by 21295 dentists. Reduction the number of children examined for 2006-2013 makes 526 thousand of children. Proportion of treated teeth with caries over to all visits is 52.8%. Proportion of complicated caries to all treated teeth is 19.3%.

Conclusions. It was possible to calculate risk group among children, which makes 36.8%. That is 1/3 children of Ukraine at the age from 0 to 17 years are not examined by dentist and are not sanitized annually.

KEY WORDS: **children, stomatological aid.**

The reformation of health protection in the XXI century in Ukraine is rather intensive. At present WHO distinguish 3 main tendencies in Ukraine:

1. Unreasonable excessive attention to specialized medical aid.
2. The use of administrative methods with short-term results.
3. Keeping to the principle of non-interference in management and as a result – unregulated commercialization in the field.

These tendencies run counter to the quality and affordability of medical aid.

International experience shows, that the problems of stomatological service and aid cannot be solved without involvement of few sources of financing, without taking into consideration social factors, without expressed interrelation with state authority. The only method of the decrease in main stomatological diseases of population is prevention. The state is not able to organize the effective system of stomatological aid without the support from the specialists and population [1].

One of the prior directions of the activity of health protection sphere in 2013 was the improvement of medical aid to the vulnerable sections of population – elderly people, disabled people, children. Among all age stratus of population the general morbidity of children takes the first place. In its structure the respiratory diseases prevail. The social factors (day regimen, nutrition, living conditions, etc.) influence most of all on children's health [2;3;4].

The aim of the work: to give the characteristics of the state of system, staff potential and the level

of stomatological aid to children in Ukraine in 2013 on the grounds of medial and statistical information.

The materials and the methods. The forms of state statistical reports № 17 (tables 1000 and 1001); № 20 (tables 1001, 1002, 1005, 1100, 1104, 2700, 2701, 2702, 2703, 2800, 2801, 3100, 3500, 3501); № 47 (table 1800); the forms of the primary account documentation № 039-2/o and № 039-3/o; the data of market letters of the SE “the Institute of Stomatology of the NAMS of Ukraine” during 2009-2013; the materials, presented in the reference books of the Center of Medical Statistics of the MH of Ukraine and the Institute of Stomatology of NMAPE named after Shupik P.L. for 2009, 2010, 2011, 2012 and 2013; the normative documents, regulating all kinds of activities of stomatological establishments, were analyzed.

The main method of the investigation is medical-and-statistical.

The findings. In 2013 the stomatological aid to children in Ukraine was given in 1052 dentist offices in organized children groups (among them: in 30 dentist offices at colleges, 973 dentist offices at comprehensive schools); in 36 pediatric stomatological clinics, 252 pediatric stomatological departments. 16 movable stomatological out-patient clinics function in different regions of Ukraine.

Stomatological aid to children was also given in 3765 private stomatological offices and family doctor ambulatories, but there is no data on the activity of these ones.

In 2013 stomatological aid to children in Ukraine was given by 2078 (0.26 per 1000 children) pediatric dentists, 16659 dentists of general practice (3.68 per 10 000 patients), 1984 dental surgeons and 574 orthodontists.

The greatest number per 1000 children is in Ivano-Frankivs'k region (0.39), Lviv region (0.51), Kharkiv region (0.37) and in Kiev city (0.71). As for orthodontists, their total number in 2013 equaled 574 doctors; the greatest number per 10 000 children at the age of 0-17 years old is in Donets'k region (0.17), Lviv and Kharkiv regions (0.16), Poltava region (0.19) and Kiev city (0.31).

It is worth pointing out, that the distribution of the positions in different regions of Ukraine, and

also within one region for urban and rural localities differs considerably. In some regions the junior specialists with secondary education certificates take the positions of pediatric dentists.

During 2002-2013 the number of pediatric dentists shortened by 149 specialists (6.7%); the provision with pediatric dentists decreased in 0.21 correspondingly. As for orthodontists their number has shortened by 157 doctors (Tab. 1).

Table 1. The number of pediatric dentists in the clinics of MH of Ukraine and provision of children with them

Years	Dentists (the whole group)		Among them			
	Abs. number	Per 10000 patients	pediatric		orthodontists	
			Abs. number	Per 1000 patients	Abs. number	Per 10000 patients
2002	20416	4,27	2227	0.47	417	0.09
2006	20539	4,42	2116	0.46	480	0.10
2013	22223	4,91	2078	0.26	574	0.13

In 2002 64,9% of pediatric dentists (from the total number of dentists) were certified; in 2013 this index made 67,6%.

During 2002–2013 the total number of visits to pediatric dentists and junior dental specialists reduced by 290497 visits (Tab. 2). Unit weight of state-financed visits by pediatric dentists made 99.5% to the general number of visits to dentists.

It is necessary to point out, that during 11 years, the number of children, examined at planned sanitization shortened by 240410, and in comparison to 2012 – by 70916 ones. But the demographic situation in the country should be taken into consideration as well. The data on planned sanitization are given in tables 3, 4, 5.

Table 2. The number of visits to pediatric dentists and junior dental specialists

Indices	2002 (up to the age 14 inclusive)	2006 (up to the age 17 inclusive)	2013 (up to the age 17 inclusive)
The total number of visits (abs.)	13190058	14080691	12899561
The number of visits per one person (%)	1,7	1,6	1,6
The unit weight of primary visits among all visits (%)	50,9	49,6	50,8
The unit weight of state-financed visits to all visits to dentist (%)	99,5	99,8	99,5

Table 3. The work of the dentist's office. The planned sanitization of children

Indices	2002 (up to the age 14 inclusive)	2006 (up to the age 17 inclusive)	2013 (up to the age 17 inclusive)
Examined at planned sanitization	5707868	5993196	5467458
including the ones, examined in self-supporting clinics (offices)	21093	14196	15813
Unit weight of planning examined patients to the corresponding population (%)	71,8	68,1	68,4
including the ones, examined in self-supporting clinics (offices)	0,26	0,2	0,2
Unit weight of planning examined patients, applied for stomatological aid (%)	43,2	42,6	42,4
including the ones, examined in self-supporting clinics (offices)	33,2	47,8	23,7

Table 4. The planned sanitization of children in Ukraine in 2002–2013

Indices	2002 (up to the age 14 inclusive)	2006 (up to the age 17 inclusive)	2013 (up to the age 17 inclusive)
From the examined ones, requiring sanitization (abs)	2984418	3003208	2650185
Among examined at planned sanitization, requiring sanitization to the corresponding population (%)	37,5	34,1	33,2
Among examined at planned sanitization, requiring sanitization to the number of examined ones (%)	52,3	50,1	48,5
The number of sanitized ones from those, who required sanitization (abs)	2494915	2477565	2144557
Unit weight of sanitized ones at planned sanitization from the number of those, who requires (%)	83,6	82,5	80,9

Table 5. Sanitized at planned sanitization and at application for

Indices	2002 (up to the age 14 inclusive)	2006 (up to the age 17 inclusive)	2013 (up to the age 17 inclusive)
Sanitized at planned sanitization and at application for including the ones, sanitized in self-supporting clinics (offices)	3627859	3595165	3260100
Unit weight of sanitized ones to the corresponding population (%)	45,6	40,8	40,8
including the ones, sanitized in self-supporting clinics (offices)	*	*	0,2
Unit weight of sanitized ones to all visits for stomatological aid (%)	27,5	25,5	25,3
including the ones, sanitized in self-supporting clinics (offices)	*	*	21,4

At planned sanitization 5 467 458 children were examined in 2013; 5 538 374 – in 2012, and 5 993 196 – in 2006. That is, the shortening of the

number of examined children during 2012 – 2013 equaled 71 000 ones, and during 2006-2013 – 526 000 children (Fig. 1).

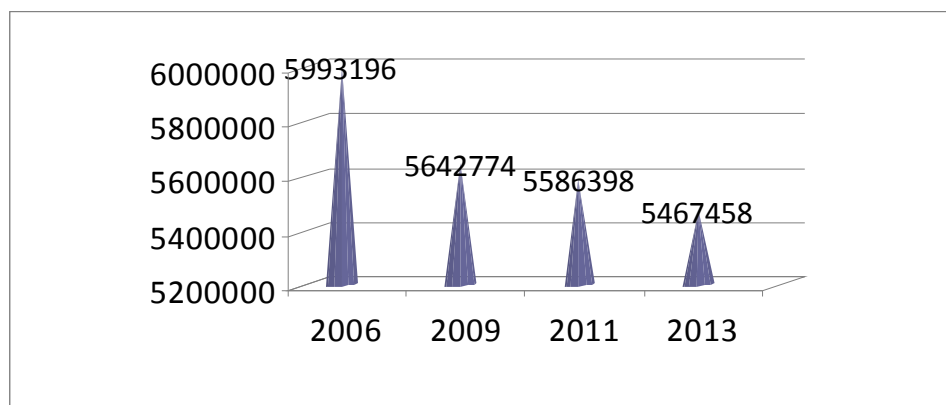


Figure 1. Children examined at planned sanitization

To calculate group of risk by the indices of planned sanitization of children the authors managed only since 2009 (Tab. 6).

The conclusion: 1/3 of children in Ukraine is not examined and is not sanitized annually.

To determine the level of orthodontic aid turned out much more difficult than it seemed. The

government did not pay such great attention to this problem 11 years ago and even before, as it does at present.

The indices, characterizing the level of orthodontic aid to children in Ukraine are given in the table 7.

Table 6. The indices of the planned sanitization of children

Indices of sanitization	2009	2010	2011	2012	2013
Unexamined (of population)	31,1% 2 547 028	28,4% 2 294 707	30,2% 2 417 038	30,5% 2 414 572	30,5% 2 430 509
Not sanitized (of requirement)	491 222	510 614	484 658	486 515	505 628
Group of risk among children	3 038 250 37,1%	2 805 321 34,7%	2 901 696 36,3%	2 901 087 36,4%	2 936 137 36,8%

Table 7. The orthodontic aid to children

Indices	2002 (up to 14 years inclusive)	2006 (up to 17 years inclusive)	2008 (up to 17 years inclusive)	2013 (up to 17 years inclusive)
Number of patients, examined by orthodontist for the first time (abs)	*	*	10972	400196
Number of patients, examined by orthodontist for the first time (to 10 000 people)	*	*	2,9	500,8
Number of patients, having completed orthodontic treatment (abs)	81863	105303	55003	48565
Number of patients, having completed orthodontic treatment (to 10 000 people)	103,0	119,6	66,1	60,8

In 2013 the unit weight of sanitized teeth on caries to the total number of visits to dentist by children up to 17 years inclusive equaled 52.8%. The unit weight of complicated caries to the total number of teeth, sanitized on caries, made 19.3%, that is by 0.9% more than in 2012.

The data on therapeutic and preventive measures are presented in the Table 8. In 2012 the course of treatment of oral mucous membrane diseases in children was held in 142 705 cases, that is by 11 710 higher, than in 2008, at that, in private dentist's offices such aid was given in 5.3% of general cases.

Table 8. The therapeutic and preventive measures in children during 2008–2013

Indices	2008	2009	2010	2013
Number of teeth, treated on caries (abs)	7726419	7450319	7470415	6808837
Unit weight of teeth, treated on caries, to all visits to dentist (%)	55,9	56,0	55,0	52,8
Number of treated teeth with complicated caries (abs)	1299381	1305609	1293457	1312120
Unit weight of complicated caries to all teeth, treated on caries (%)	22,1	22,3	17,3	19,3
The treatment of oral mucous membrane diseases (abs)	130995	134768	143813	140415
Morbidity of oral mucous membrane (to 10 000 people)	157,3	164,6	178,0	175,7

Well-known difficulties in stomatological clinics at provision with free stomatological aid occur because of insufficient financing. Especially short material logistics is observed in pediatric dentistry [5;6].

As a result of the investigations held in Donets'k region, the authors have drawn the conclusion, that the information awareness of medical insurance of dentists at general visit of children is on the very

low level; the wish to get the information on this problem was shown by dentists at the age of 40-54 with the record of serving not less than 15 years; dentists consider their material interests to be the main motive for the beginning of the work of the system of medical insurance, this fact in its turn is explained by uncertainty in material state, connected to social transformation [6].

On the basis of the given above material we can draw the following conclusion: during 11 years the number of visits to dentist by children shortened considerably (by 290 497 visits); 99.5% of visits – to state-financed stomatological clinics. The authors managed to estimate the group of risk among children as the result of the analysis of the data of planned sanitization of children. It makes 36.8%. It means that 1/3 children in Ukraine at the age from 0 to 17 years are not examined by dentist and are not sanitized annually.

The stomatological morbidity of children remains high. The present organizational model and principles of the financing of stomatological aid cannot improve the situation. The new model of pediatric stomatological aid, which can solve the problems today, has not been created in pilot regions yet. It is necessary to elaborate the model of stomatological prophylactic medical examination of children. 95% of stomatological aid to children is given in state-financed medicoprophyllactic institutions. The new organizational scheme should stipulate the development of state-financed stomatological aid. The certified level of all kinds of free stomatological aid to children requires the exact determination.

Prospects for further research: the study results are to provide on-preventive and curative care for children, especially in organized children's groups and given somatogenic nature of dental diseases.

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ОРГАНІЗАЦІЯ НАДАННЯ СТОМАТОЛОГІЧНОЇ ДОПОМОГИ ДИТЯЧОМУ НАСЕЛЕННЮ УКРАЇНИ У 2013 РОЦІ

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Мета: надати характеристику стану мережі, кадрового потенціалу та рівня надання стоматологічної допомоги дитячому населенню України у 2013 році.

Матеріали і методи. Проаналізовано форми державної статистичної звітності, дані кон'юнктурних оглядів, матеріали Центру медичної статистики МОЗ України, відповідні нормативні документи. Застосовувалися загальноприйняті методи медичної статистики.

Результати. Стоматологічна допомога дитячому населенню України надавалась у 1356 закладах охорони здоров'я 21295 лікарями-стоматологами. Зменшення кількості оглянутих дітей за 2006–2013 рр. становить 526 тис. дітей. Питома вага пролікованих зубів з приводу карієсу до усіх відвідувань становить 52,8%. Питома вага ускладненого карієсу до усіх пролікованих зубів – 19,3%,

Висновки. Вдалося вирахувати групу ризику серед дитячого населення, що становить 36,8%. Тобто 1/3 дітей України віком від 0 до 17 років щорічно не оглядається лікарем-стоматологом і не санується.

КЛЮЧОВІ СЛОВА: дитяче населення, стоматологічна допомога.

ОРГАНИЗАЦИЯ ОКАЗАНИЯ СТОМАТОЛОГИЧЕСКОЙ ПОМОЩИ ДЕТСКОМУ НАСЕЛЕНИЮ УКРАИНЫ В 2013 ГОДУ*О.Э. Рейзвих, С.А. Шнайдер*

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Цель: охарактеризовать состояние сети, кадрового потенциала и уровня оказания стоматологической помощи детскому населению Украины в 2013 году.

Материалы и методы. Проанализированы формы государственной статистической отчетности, данные конъюнктурных осмотров, материалы Центра медицинской статистики МЗ Украины, соответствующие нормативные документы. Применялись общепринятые методы медицинской статистики.

Результаты. Стоматологическая помощь детскому населению Украины оказывалась в 1356 учреждениях здравоохранения 21295 врачами-стоматологами. Уменьшение количества осмотренных детей за 2006–2013 гг. составляет 52,8%. Удельный вес пролеченных зубов по поводу кариеса ко всем пролеченным зубам – 19,3%.

Выводы. Удалось вычислить группу риска среди детского населения, что составляет 36,8%. То есть 1/3 детей Украины в возрасте от 0 до 17 лет ежегодно не осматриваются врачом-стоматологом и не saniруются.

КЛЮЧЕВЫЕ СЛОВА: **детское население, стоматологическая помощь.**

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