

## SELECTED ORAL PRESENTATIONS FROM 12th INTERNATIONAL ISTANBUL FAMILY MEDICINE CONGRESS

### (FIRST PRIZE)

#### A WORKLOAD DENSITY ANALYSIS OF PEDIATRIC AND ADOLESCENT HEALTHCARE FOLLOW-UP PROTOCOL WITH REGARDS TO FAMILY MEDICINE

*Abdullah Uçar, Chaki Rasit*

*No.34.33.030 Family Medicine Unit, Anafartalar FMC, Sultangazi, Istanbul, Turkey*

**Objective:** “The Collaboration Protocol For School Healthcare Services” was signed between the Ministry of Health (MH) and the Ministry of National Education (MNE) on May 17th, 2016 and the pediatric and adolescent healthcare follow-up program has been put into practice country wide in Turkey. The population between the ages of 3 to 21 years-old is supposed to get visits and follow-ups annually according to the program. Daily applications to the Family Medicine Centers (FMC) throughout Istanbul were overmultiplied after beginning of the program and it was reflected in the press. In this study, it was aimed to estimate the increase in the workload of Family Medicine Units (FMU) in Istanbul, resulted from the program in 2018.

The new workload increase estimation has been held with respect to age group of 5 to 21 years, since the age group of 0 to 56 months already receives the service within the scope of baby-children follow-ups. The program should be applied according to the guide of “ Baby, Child and Adolescent Follow-up Protocols”. Minimum time requirements for the medical procedures of follow-up were not mentioned in the guide, and no comprehensive timing study done for FMUs, determined in the literature. The practice time needed for follow-ups has been estimated on the experiences gained from the family medicine practice.

The number of family physicians in Istanbul was 3985 in November 2017. The mean number of daily applications for each family physician in Istanbul was 44 in 2017. According to the data from TÜİK (Turkish Statistical Institute) the population of 5 to 21 years-old age group which causes the extra workload in Istanbul was 3.739.069. In new practice, the age group of 5 to 21 years-old (n=3.739.069) should apply once a year, and then those groups of 5 years-old (n=220.771) and 10 to 21 years-old(n=2.635.216) also need measurements of hemoglobin and hematocrit, and should apply once again for evaluation of results. In this case, total annually expected applications should be 6.595.056. Total working days in 2018 are 231 with the exception of a 20-days of annual leave. Under these circumstances, a mean application number of 7,16 per FMU was expected daily. When it was compared with the daily outpatient applications of 44, the number of applications rises by 16 % with the new program. When the workload was estimated only based on the compulsory procedures, the time cost required by the program was 3,06 hours/day per FMU. The increase in time cost of the program per FMU was estimated as 38,25%, when compared with 8 hours of daily work time.

This new program causes a huge increase in workload of FMUs. The human workforce of health system to carry out this program every new year is also not adequate. Insisting to carry out a huge program like this one with limited sources might effect the quality of follow-ups and other services provided in FMCs negatively. The program of children and adolescents’ health follow-up has an important role on improvement of health, but the existing health workforce sources could be utilized more productively by measuring opportunity costs and detailed planning with the scope of sources required by other health development programs.

**Table 1.** Medical procedures to be held with the scope of Children and Adolescents' Follow-ups.

	N / M*	Age Groups	Estimated			Daily min. per FMU
			Time of Practice (min)	Number of Persons	Workload (Person X Min.)	
Measurement of Height-Weight-BMI	M	5-21	2	3.739.069	7.478.138	8
Measurement of Blood Pressure	M	5-21	3	3.739.069	11.217.207	12
Hearing***	N				-	-
Vision***	N				-	-
Developmental Evaluation	M	5-21	5	3.739.069	18.695.345	20
Social and Behavioral Evaluation	M	5-9	5	1.103.853	5.519.265	6
Adolescent-asking Evaluation	M	10-21	20****	2.635.216	52.704.320	57
Physical Inspection	M	5-21	10	3.739.069	37.390.690	41
Vaccination	N				-	-
Evaluation of Hyperlipidemia Risk	M	5-21	3	3.739.069	11.217.207	12
Dental Health	M	5-21	1	3.739.069	3.739.069	4
Counseling	M	5-21	2	3.739.069	7.478.138	8
Measurement and Evaluation of Hemoglobin/Hematocrit	M	5 and 10-21	5	2.855.987	14.279.935	16
<b>Total</b>			56 min			184min

\*N: Do if needed. ; M: Mandatory / Must be done.

\*\* This is the time specified in the follow-up protocol.

\*\*\* Procedures of "Do if needed" were not taken into account in the study.

\*\*\*\* The time of 20 min. given for ADOLESCENT-ASKING (ENGENSOR) was defined in the guide for MH Follow-up Protocols.