

## **The Role of a Family for Internal Dose Formation in Rural Community**

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Despite correct evaluation of agricultural land contamination of a settlement and the activity of foodstuffs, it is impossible to explain dose formation in rural community. And without this knowledge it is impossible to estimate correctly decision-making. The dose formation research was provided earlier in rural community based on the concept describing that the individual with his personal characteristics, social and economic statuses during his practical activity interacting with the contaminated environment, actively contributes to dose formation. Such approach only partly allows revealing dose formation mechanisms though there are some unclear issues: for example, high doses at some children. At the same time children, as well as all residents are the members of families. Direct consumption of food stuffs is provided within a family. It is preceded with the formation of psycho-emotional perception of radiation danger factor.

There have been used the data of internal doses of the inhabitants obtained by the results of WBC-measurements. Simultaneously with performing of WBC-measurements by interviewing of adult members of a family there was revealed the frequency of visits to forest and consumption rate of its "gifts".

The method of a family analysis of internal dose formation is the classification of families by set of the informative attributes describing dose formation in a family such as an average internal dose at a member of a family; family total dose; the description of a family "contact" with a forest; the number of family members; the number of children in a family; average age and the educational level of adult members of a family; gender and occupation of the head of a family; age and education of the head of a family.

As a result of multivariate classification of families in the settlement there was obtained 10 different classes providing complete imagination about a variety of families' types. The average doses in classes essentially differ, the values of a standard geometrical deviation of dose distribution in classes is low enough in comparison with the settlement as a whole. It testifies to homogeneity of classes on dose.

There were revealed the most significant social-demographic characteristics of a family influencing on internal dose formation of its members: the number of members and children, average age, education and relevant occupation of a family. The age, education, occupation and gender of the head of a family despite the fact they are connected with similar characteristics of a family as a whole contribute to greater influence on dose formation. Young families with many children whose heads are men of working occupations providing forest "gifts" to families, have high doses including children.

***KEY WORDS: family, internal dose, family analysis, classification***