Family formation (the probability and times of birth of children) is a demographic process closely connected with social conditions of life. From this point of view the study of this process in families in which one spouse has schizophrenia or manic-depressive psychosis is of great importance for evaluation of the level of social compensation of these patients.

The birth rate among patients with endogenous psychoses has most frequently been analyzed in the literature from the standpoint of reproduction of a group of the population with an increased risk of developing the disease [1-4]. Essentially this problem is a special case of the investigation of qualitative reproduction of the population. This aspect in demography has received very little study [5]. According to data obtained by the writers, the birth rate in the group of patients with schizophrenia investigated is rather lower than in the general population. The gross reproduction rate in the group of schizophrenic patients studied was 1.537, compared with 2.014 for the population of Moscow [6]. However, for various technical difficulties, it was impossible to conclude from these data that reproduction of the population with an increased risk of developing schizophrenia is reduced.

The material for this investigation was a group of women (901) with schizophrenia living in the area of the former Kiev District of Moscow, and also a group of patients with manic-depressive psychosis (230) living in the area of the Kiev, Frunze, and Sverdlov Districts. All patients were examined consecutively without any attempt at sampling, depending on their place of residence.

One of the most important indices that is usually calculated during the investigation of family formation is the infertility rate, the relative number of women childless throughout the childbearing period (Table 1). Factors leading to infertility includes, on the one hand, sterility of the women due to various biological reasons, and on the other hand, social causes (deliberate refusal to have children or unfavorable conditions of marriage). Since there are no grounds for considering that the incidence of biologically determined sterility is higher among mentally sick women than among healthy, the differences in the infertility rates must be attributable to social factors connected with the disease.

When Table 1 is examined it must be remembered that 98% of all first births took place before the age of 35 years. Since patients with the malignant form of schizophrenia virtually never marry and have no children, they are not considered in this table or later in the paper.

When the figures obtained are compared it must be remembered that data for large cities (Moscow, Leningrad, Kiev) differ somewhat from those given above and the figure for all women over 35 years of age is approximately 16%. The infertility rates for women with schizophrenia and manic-depressive psychosis are considerably higher than the corresponding figures for healthy women. It should be mentioned in particular that the differences found were significant for all forms of schizophrenia; moreover, they were more marked in schizophrenia than in manic-depressive psychosis. If the results are compared with the marriage rates,

*The gross reproduction rate is the mean number of children born to one woman in the course of the childbearing period.
†The other factors of the social life of mentally sick and healthy women are about equal, for in both cases representative groups of the urban population exactly comparable in their basic conditions of life were studied.

they reveal more precise disturbances of adaptation than the marriage rate, for the proportion of patients who never marry is about 35% for the various types of schizophrenia, whereas the proportion of patients not having children is higher. Patients with manic-depressive psychosis marry in 94.4% of cases, but there are considerably more childless marriages among them than in the general population, although fewer than with schizophrenia.

Comparison of the infertility rates for patients with schizophrenia in relation to the type of course of the disease (for all age groups) shows that the differences between them for continuous and episodic types of course and for the two taken together (55.3 and 39.4 respectively) are statistically significant. This result may reflect the fact that the degree of disturbance of familial adaptation of the patients is more closely bound with the character of the course of the disease (continuous and episodic) than with the finer shades of difference in course within the clinical forms mentioned. It can thus be concluded from an analysis of Table 1 that among patients with schizophrenia there is a considerable proportion whose social disadaptation is so marked that it leads to childlessness. Quantitatively speaking, this number is more than half of the total number of patients with continuous schizophrenia and more than one-third of those with episodic forms. Evidently the rest of the patients must have children; this fact in itself does not mean that the social adaptation of this section of the patients was completely undisturbed. Indirect evidence of this will be given later.

The age of marriage in the healthy population has a substantial effect on the infertility index. For instance, if marriage occurs after the age of 24 years the proportion of infertile women is doubled, and if marriage takes place after the age of 30 years it is doubled again [5].

In the population of patients with schizophrenia studied changes in the infertility rates also were found depending on the age of marriage. In the case of marriage before the age of 24 years the proportion of patients not having children throughout the childbearing period was 18.8%, for marriage after 24 years it was 24%, and after 30 years 56.8%. Doubling of the infertility index took place only in the group marrying after the age of 30 years; similar patterns are observed for each type of course of the disease separately, except recurrent, when the ratio was practically the same as for the general population. The corresponding infertility rates for recurrent schizophrenia were 8.1, 15.2, and 37.5%. Meanwhile there was a lower general level of infertility of patients with recurrent schizophrenia compared with the mean rates for schizophrenia as a whole. Two factors are thus important for the infertility rate of the affected women: the first, depending on the clinical character of the disease and leading ultimately to a marked increase in the infertility rate among affected women compared with the general population, and second, connected with general demographic factors. The second factor has its greatest effect in the group of affected women whose social adaptation was relatively little disturbed. This suggests that within the group of infertile women with schizophrenia two subgroups also can be distinguished. In one of them the infertility rates correlate clearly with the degree of progression of the disease and reflects the patients powers of adaptation. The other subgroup requires separate study of clinical-social relations and, within the framework of the present investigation, it is difficult to define it precisely.

We know that in the general population 25% of healthy women marrying after the age of 30 years remain childless. As regards patients with schizophrenia, in about 30% of them marrying after the age of 30 years (including 12% of patients with recurrent schizophrenia) the infertility can be explained by the disease.