

## Postnatal depression screening model for Russian Federation: model-based economic evaluation

### INTRODUCTION

The prevalence of postpartum depression (PPD) is estimated at 10-20% range worldwide. In Russia, only 3% are detected and cured, there is no any screening for PPD. In the study we propose and analyse a programme of routine screening for PPD within the Russian healthcare framework.

### MATERIAL AND METHODS

A model of screening for PPD has been built in the form of a decision tree in comparison with current practice.

Authors propose to screen for PPD all mothers at well child visits at six weeks and four months postpartum. A short questionnaire with three questions (PHQ 2+1) is used as a screening tool, which is filled out during routine examinations of the child. Calculations were made on the basis of statistical data on the number of newborns in Moscow in 2019.

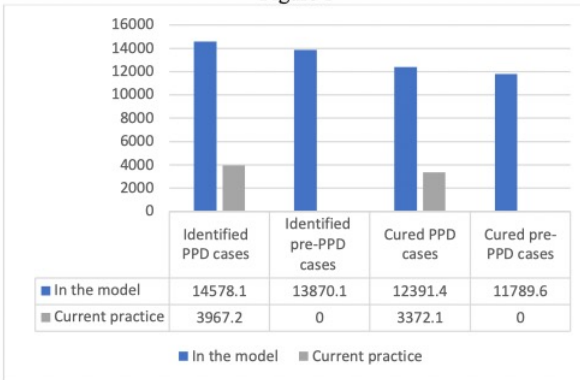
Clinical and economic analysis was carried out by the cost-effectiveness method, where the criterion of effectiveness is the identified case and the cured case of PPD. The analysis estimates the total annual cost of routine screening, the number of additional detected and cured cases of PPD, and the additional cost for each additional detected and cured case.

### RESULTS

The total annual cost of routine screening for PPD in the Russian Federation is estimated to be 345 511 114 RUR per year, which includes the costs associated with screening (8 278 863,52 RUR) and treatment (337 232 250 RUR). The additional cost of moving to the programme is 268 081 183,14 RUR per year.

The routine screening programme will identify 10 610,7 additional (compared to current practice) cases of PPD, 13 869,9 cases with pre-threshold symptoms of PPD and will additionally cure 8 899,4 cases of PPD and 11 789,4 cases with pre-threshold symptoms (Fig.1). The incremental cost per additionally identified case is 338,19 RUR, per each additional cured case is 11 486,9 RUR.

Figure 1



### CONCLUSION

The constructed clinical and economic model has demonstrated the feasibility of introducing PPD screening in the Russian Federation by means of a short survey as part of routine examinations of children in the first year of life.