Introduction The intake of folic acid before and during pregnancy is known to reduce the risk of neural tube defects in the unborn child. Many pregnant women in Germany do take folic acid at some point during their pregnancy; however, very few of them start taking supplements before conception as recommended. The aim of this study was to find out more about the supplementation behavior among pregnant women and postpartum women, especially among those with migration backgrounds and without German language skills, because they are not represented in most studies that have been conducted so far.

Methods Pregnant women and postpartum women were approached on the Virchow hospital campus, which is part of the Charité University of Berlin. They were asked to anonymously fill in a questionnaire in German, Turkish or Arabic language about their pregnancy and potential folic acid intake. Results were evaluated using SPSS. We conducted a logistic regression analysis to identify independent predictors of folic acid intake during pregnancy.

Results 1340 pregnant women and postpartum women answered a questionnaire, 52 (3.9%) of them in Turkish and 67 (5%) of them in Arabic. 90.7% (n = 1069) of women did take folic acid at some point during their pregnancy, 37.8% (n = 445) before conception as advised. The univariate analysis showed that pregnant women are more likely to take folic acid before conception when they have planned their pregnancy, when they are better educated, earn more money and are older (p each < 0.05). Non-German women and women who filled in a questionnaire in Turkish or Arabic language took significantly less folic acid than German women (71.7% vs. 93.8% and 71.7% vs. 92.6%, p < 0.001). The multivariate binary regression analysis identified education, income and planning of the pregnancy as independent predictors of folic acid intake prior to conception.

Conclusion Almost two thirds of pregnant women do not take folic acid when they need it most, especially those women who do not make much money, are not well educated, are young, and/or have not planned their pregnancy. Additionally, the supplementation rate is lower among non-German women and/or women who do not speak any German. This knowledge can help to focus future educational efforts on target groups only, for example by approaching especially those women who are less likely to take folic acid. This might work through educational efforts in schools, talking to women when they show up for check-ups at gynecological practices, through campaigns on the internet or in public places, and through multilingual approaches.