OBJECTIVES: The objectives of this study are to estimate the diffusion curve of atypical antipsychotic agents and to investigate the influence of physician mix and supply on the diffusion cycle. METHODS: Retrospective analysis of Iowa Medicaid pharmacy claims data were done for the period January 1990 till June 2000 to identify the percentage of patients receiving atypical agents in each county and each month. Antipsychotic agents were identified using the National Drug Codes for antipsychotic agents. Information on physicians practicing in each county was obtained from the Iowa Physician Database. To test whether the diffusion cycle follows the S-shaped curve, a cubic regression model was run where the dependent variable is percentage of patients receiving atypical agents in each month and the independent variable is time. The effect of physician factors were tested using weighted multiple regression analysis where each independent variable was interacted with time, time² and time³. RESULTS: The number of observations to test the shape of the diffusion curve is 126 (state aggregate over sample period) and the number of observations to test the influence of physician mix and supply is 12,474 (99 counties over sample period). The results revealed that time and time² were negatively significant and time³ was positively significant suggesting that the diffusion curve resembles the S-shaped curve. Diffusion of atypical agents accelerated earlier in counties having higher number of physicians. Diffusion accelerated faster in counties having higher percentage of high network physicians and counties having higher percentage of younger physicians. Information available was not sufficient to indicate that high psychiatrist counties had a faster diffusion of atypical agents. CONCLUSIONS: Physician mix and supply factors affected differently at different phases of the diffusion cycle. Understanding the role of physician mix and supply on uneven diffusion will help the policy makers develop interventions to take care of this disparity.

ETHNICITY AND SCHIZOPHRENIA: MEDICATION CHOICE: HALOPERIDOL, RISPERIDONE, OR OLANZAPINE
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OBJECTIVES: Research has shown that patients with schizophrenia may respond better to 2nd generation antipsychotics versus older antipsychotics due to superior efficacy and safety profiles. However, reduced likelihood of ethnic minorities receiving newer antipsychotics may be associated with reduced medication adherence and health service utilization, potentially contributing to poor response rates. The purpose of this study was to examine if ethnicity helped predict whether patients with schizophrenia were prescribed 1) haloperidol versus risperidone or olanzapine, and 2) risperidone versus olanzapine, when controlling for other factors. METHODS: Texas Medicaid claims were analyzed for persons, age 21 to 65, diagnosed with schizophrenia or schizoaffective disorder, initiating treatment with olanzapine (N = 1875), risperidone (N = 982), or haloperidol (N = 726) between January 1997 and August 1998. The association between antipsychotic prescribing and ethnicity (African American, Mexican American, or Caucasian) was assessed using logistic regression. Covariates included other patient demographics, region, comorbid mental health conditions, and prior medication and health care resource use. RESULTS: The results of the haloperidol versus risperidone or olanzapine analysis indicated that African Americans were significantly less likely than Caucasians to receive 2nd generation antipsychotics (OR = 0.657; 95% CI: 0.539, 0.801; p < 0.001). Ethnicity was not associated with significant differences in the use of risperidone versus olanzapine. CONCLUSIONS: When other factors were controlled, African Americans were significantly less likely to receive the newer antipsychotics. Among those who did receive the newer antipsychotics, ethnicity did not affect medication choice.