INTRODUCTION: Schools and neighborhoods are important social determinants of mental health. Only a small number of studies have examined the relative contribution of these settings simultaneously. Our objective was to compare the unique influence of each setting on depressive symptoms among youth living in the United States.

METHODS: Data came from participants in the National Longitudinal Study of Adolescent Health (AddHealth), one of the only nationally-representative longitudinal surveys of US adolescents. Our analyses were based on an analytic sample of 16,172 students nested in 128 schools and 2,118 neighborhoods (defined by census-tracts). We used cross-classified multilevel modeling (CCMM) to examine school-level and neighborhood-level variation (random effects) and individual-, school-, and neighborhood-level associations (fixed effects). We then compared CCMM results with those obtained from a multilevel model (MLM) that focused on each context separately (ignoring the other context). Finally, we compared depression levels across youth in discordant contexts based on socioeconomic (e.g. youth attending high poverty schools, but living in low poverty neighborhoods) and racial/ethnic composition.

RESULTS: In the MLMs, neighborhoods (3.2%) and schools (3.6%) each significantly contributed to the variance in depressive symptoms. In the CCMM examining neighborhoods and schools simultaneously, only the school-level variance was significant (\( \beta = 1.69; P = 0.73 \)). Only fixed effects at the individual-level were associated with depressive symptoms; no school-level or neighborhood-level variables we examined were linked to depression. Levels of depressive symptoms differed across youth in discordant race/ethnicity and socioeconomic settings. For example, depressive symptoms scores were highest among the 15.7% of youth who attended high minority schools, but lived in low minority neighborhoods (mean = 12.46, SD = 7.80).

CONCLUSIONS: Schools appear more salient than neighborhoods in explaining variation in levels of depression, though it is unclear which school-level factors are most influential. Future work using CCMM on schools and neighborhoods and examining youth in discordant social settings is needed.