Introduction: This is the first nationwide spatial analysis of retail food environments around more and less socioeconomically deprived schools in New Zealand.

Methods: Addresses from all food outlets were retrieved from 66 City and District Councils in 2014. All fast food, takeaway, and convenience outlets (FFTCs) were geocoded and (spatially) validated in 2015. Density and proximity of FFTCs around/from all schools were stratified by urban/rural area and quintile of school socioeconomic deprivation.

Results: About 68.5% urban and 14.0% rural schools had a convenience store within 800 m; 62.0% urban and 9.5% rural schools had a fast food or takeaway outlet within 800 m. Median road distance to the closest convenience store from urban schools was significantly higher for the least (617 m) versus the most deprived (521 m) schools (p<0.001); the opposite was found for rural schools. Median FFTC density was 2.4 (0.8–4.8) per km² and maximum density was 85 per km² within 800 m of urban schools. Median density of convenience stores around the least deprived urban schools was significantly lower than around the most deprived schools (p<0.01).

Conclusions: Access to unhealthy foods through FFTCs within walking distance from urban schools is substantial in New Zealand, and greater for the most versus the least deprived schools. Health promoters should work with retailers to explore feasible actions to reduce children’s exposure to unhealthy foods before and after school, and provisions to allow Councils to restrict new FFTCs in school neighborhoods could be included in the local Government Act.