



**Diane Gilbert-Diamond, D.Sc.**, a research associate at Dartmouth, was the first author on a paper which reported that children who are deficient in Vitamin D are likely to gain weight rapidly.

## Address affects alcohol availability

**H**eat rate, blood pressure, temperature . . . address? According to Ethan Berke, M.D., an expert on medical geography, where people live strongly influences their behavior, and therefore their health. “We need to start considering habitat and environment as an aspect of our clinical care,” he says. “We could even consider it the next ‘vital sign.’”

Berke is interested in how the characteristics of a neighborhood help determine its inhabitants’ risk of poor health. In a recent study published in the *American Journal of Public Health*, he and colleagues reported that the availability of alcohol varies according to race, poverty, and education—all factors associated with health disparities.

**Tool:** Most previous research on the relationship between health and the availability of alcohol has taken a local or regional perspective. For this study, the DMS team developed a powerful mapping tool to show the location of all the points of sale of alcohol across the U.S., including liquor stores, bars, grocery and convenience stores, and gas stations.

After all these outlets were identified,

the researchers used census data to calculate the number of outlets per 1,000 people within neighborhoods. They also used well-established criteria to divide the country into urban and rural areas.

**Outlets:** The team found that in urban areas, which make up about two-thirds of the country’s census tracts, the density of alcohol outlets correlated with larger populations of racial and ethnic minorities, greater poverty, and lower educational attainment. In other words, alcohol is more available in places where residents are already at higher risk for health problems.

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Interestingly, however, none of these relationships was found in rural areas, possibly because people in rural areas have to travel farther to buy alcohol, making the effect more difficult to measure.

Berke hopes that identifying neighborhoods at risk of higher levels of alcohol abuse may help communities and health professionals ensure that appropriate preventive measures and treatments are available where they are most needed.

The researchers also plan to take a closer look at the behaviors driving alcohol consumption at the individual level. “Risk factors in an area occur in clusters, and the influence of the interplay between advertising, availability, and behavior of others is difficult to tease out,” says Susanne Tanski, M.D., a coauthor of the study. Examining the issue from the perspective of individuals will give the researchers a better understanding of how both community-level and individual factors add up to help determine alcohol consumption.

**Platform:** In addition, Berke adds, the tools developed for this study could provide a valuable platform for future research on geographic risk factors by other DMS investigators. KATHERINE ROWE



MARK WASHBURN

**Berke, right, is an expert on medical geography.**

### Back in the OR

For patients with symptomatic lumbar spinal stenosis—a narrowing of the spinal column in the lower back—surgery is likely a better option than nonsurgical treatment, according to a long-term study. A team led by DH’s James Weinstein, D.O., followed about 650 patients for four years, comparing pain and function in those who had surgery to outcomes in patients treated with interventions such as physical therapy and medications. “Those treated surgically showed significantly greater improvement . . . compared to patients treated nonoperatively,” the researchers reported in the journal *Spine*.



### White coats, red ink

“Physicians cannot make the decision to follow a [primary-care] career path lightly,” concluded DH’s Martin Palmeri, M.D., and colleagues in a recent article. They found that, given the heavy debt most medical students incur and the long training for medicine, primary-care physicians may spend the first three to five years of their careers earning less than their expenses, forcing them to make difficult choices that colleagues in more lucrative subspecialties may avoid. Writing in *Academic Medicine*, the authors argue that this discrepancy should be addressed through loan repayments or other programs to encourage interest in primary care.

