The Geography of Mental Health

Wisconsin's Uneven Landscape and why it matters for the UW-Eau Claire Community

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Background

This research project represents the efforts of Dr. Paul Kaldjian's Fall 2018 GEOG 111: Human Geography honors section. Students chose this topic based on a collective interest in mental health and how we might examine it with geographical tools and concepts we were learning. We compiled multiple data sources including the National College Health Assessment (NCHA), WI Department of Health Services, and the Substance Abuse and Mental Health Services Adm.

Wisconsin Public Radio recently reported that student demand for campus counseling services in the UW system has gone up 55% since 2010. Over this same period, staffing in counseling services has increased only 19%. This article highlights an underlying but overlooked issue in our educational communities: young people are struggling with mental health issues that complicate and inhibit learning.

For our project, we evaluated the geographic distribution of variables associated with emotional distress, and then compared it to the geography of treatment opportunities and options. To begin to understand treatment options for state residents, we examined availability and access to health care by mapping the location of treatment centers and licensed therapists across the state. To help us get a better idea of options available to university students, we examined levels of funding each university in Wisconsin receives from the state government for mental health care.

Mental Health And UWEC

Anxiety, depression, and stress all affect academic performance. Roughly one-third of UWEC students report that anxiety or stress affect their academics and 18% percent self-report that depression affects their academics. Nearly 30% of UWEC students report having had suicidal thoughts at some point in their life and 10.5% have had such thoughts within the previous year (NCHA II: UW-Eau Claire). Such struggles are faced by students nationwide and are consistent with survey data gathered from 40 universities around the country (National College Health Association, 2018, see www.acha.org/ncha).

While numerous factors may be at play in the high percentage of students with a mental health issue, they may be compounded by alcohol. The potential long term effects of excessive alcohol consumption include depression and anxiety; furthermore, Eau Claire was recently identified as the second drunkest city in the USA out of 381 metropolitan areas – seven of the top ten were in Wisconsin (*Green Bay Gazette* 2018). Indeed, Wisconsin cities have rated among the "drunkest" in the country for at least a few years (*Star Tribune* 2016). Recent CDC data (2015) indicate that 24.5% of adults in Wisconsin binge-drink (four or more drinks for women and five or more for men in one occasion) compared to the national average of about 17%.

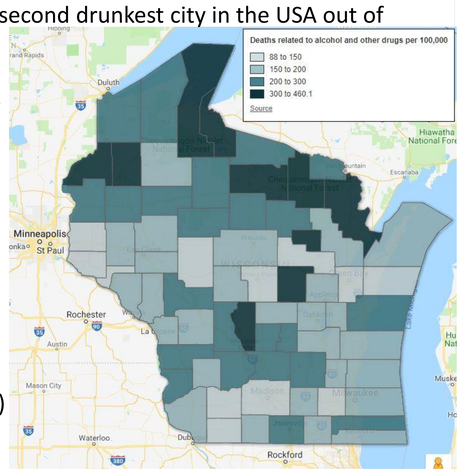

Figure 1. Alcohol/drug related deaths per capita

Health Discrepancies in Across WI

Across Wisconsin there is a major disparity in mental health issues between rural and urban counties. For example, while the national suicide rate in the United States is about 14 for every 100,000 people, suicide rates in some of Wisconsin's counties can be as high as 47. Wisconsin's urban counties correlate more closely with the national average. For our collective health, this must be investigated. This is imperative for UWEC's success, as many of our students come from rural regions. Over one-third of our students are first generation and may not be aware of the resources a university can or should provide.

Drawing from county health data reported by the Wisconsin Department of Health Services, an evaluation of health and behavioral data confirms disparities in mental health afflictions across the state. This information places the problems on UW-Eau Claire's campus in a broader Wisconsin context. By mapping such data as including drug/alcohol use and suicide rates, we see stark contrast between counties and regions in health. Spatially representing data improves our geographical understanding and invites us to consider causes of disparities and, hopefully, a sense of what is needed to address them.

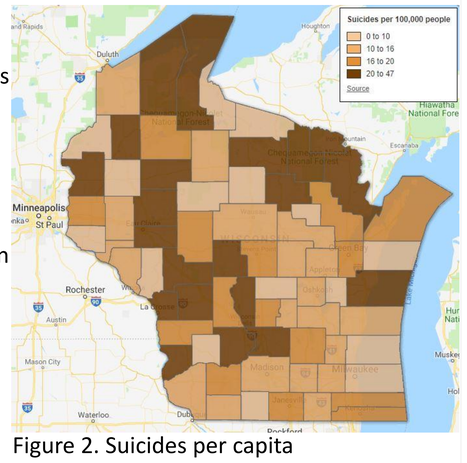

Figure 2. Suicides per capita

Observations

- Suicides per capita is noticeably higher in counties with a low population density (Figure 2);
- Counties with low population densities have more deaths related to drugs and alcohol (per 100,000 people) (Figure 1);
- Deaths related to drugs and alcohol (per 100,000 people) tend correlate more highly with the number of suicides (Figures 1 and 2);
- In counties with fewer mental health providers people may be more likely to use alcohol and drugs as coping mechanisms (Figures 1, 3 & 4).

Implications

The difference in the availability of treatment and services between rural and urban areas is stark. Clearly, there are likely to be more services (physicians & treatment centers) in an urban area compared to a rural area, as clinics and facilities are located where there are more. Ironically, the need on a per capita basis is just as great in rural areas, where the consequences (suicides and drug/alcohol related deaths) of the lack of available care are even greater. Across the country, studies show that farmers have an increased rate of suicide as opposed to industrial and urban workforces (WPR 2018). As county health data shows (see Figure 2), Wisconsin counties with more rural populations have higher suicide rates. In many rural communities there is also a stigma associated with receiving care. This may be because people in these communities tend to have more connections with their fellow community members and may fear that if they receive help, others will find out and think less of them. In such circumstances, alcohol may also serve as a form of self-medication. In contrast, in an urban location, people do not have as many connections with others around them and there are many more options for services.

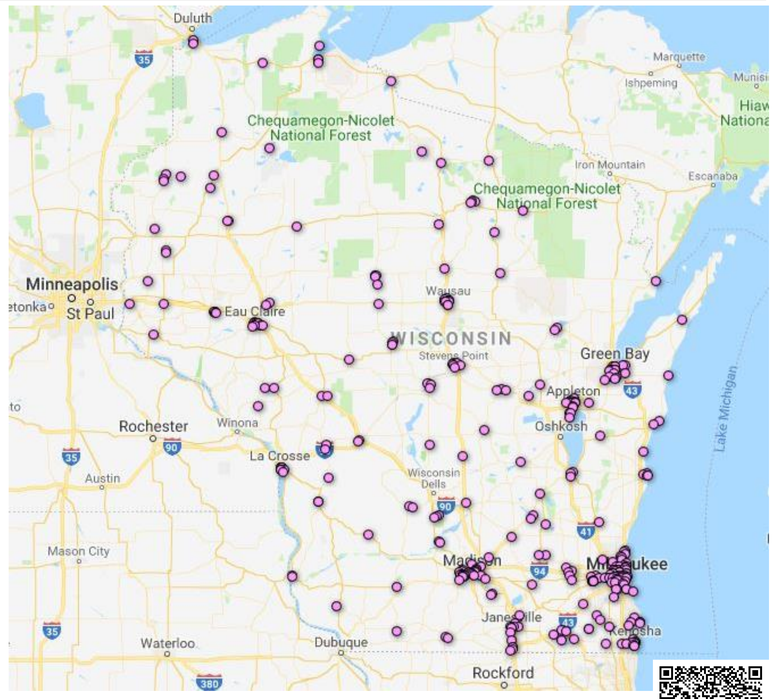

Figure 3. Mental health facilities in WI
Scan the QR code or go to https://tinyurl.com/GEOG111-Mental-Health to see the maps online. Clicking a purple dot on the interactive map will provide the facility's address, contact information, and services provided.

Accessibility of Treatment

Critical to addressing mental health issues in Wisconsin and around the country is access to health care, and access begins with availability of appropriate mental health treatment options. We retrieved data from the *National Directory of Mental Health Treatment Facilities* (2018) and mapped all clinical facilities in Wisconsin. Our data show the disparity in availability of mental health care across Wisconsin. Larger cities offer more services and have more facilities than rural areas. As shown in the Figure 4, there are large clusters of licensed psychologists around urban areas but very few distributed among rural areas. Thus, the lack of availability precludes access. To be sure, availability still does not ensure accessibility, as the costs of care, the presence and nature of government or employer programs, and whether or not one has insurance coverage are major factors that limit or enable accessibility to appropriate mental health care.

Conclusion

Ultimately, we need to understand and address the causes of rising mental health struggles. More research into the "why" will help us as a society address how to prevent mental health problems more effectively. When we look at data comparing ruralness with alcoholism, we can recognize a major cause of mental health issues in our area. We need more support and resources available to address these symptoms and conditions. Accessibility is key to creating healthier, happier population of individuals.

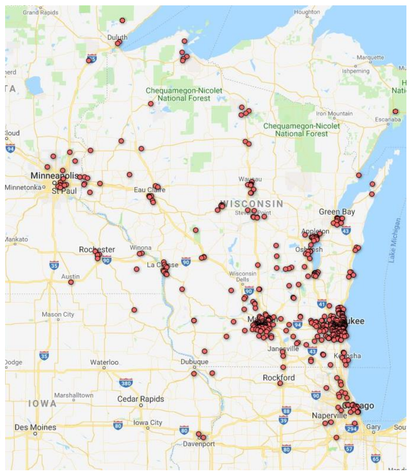

Figure 4. Licensed psychologists in WI

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