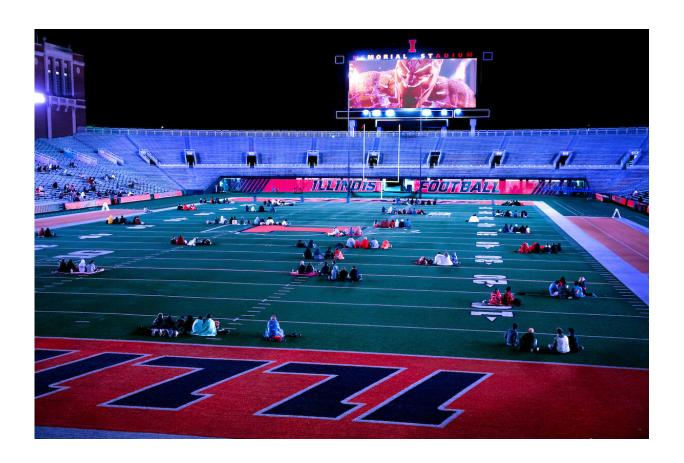


Does our place in society influence how we respond to COVID-19 protocol?

December 28 2021, by Lois Yoksoulian



University of Illinois Urbana-Champaign students practicing social distancing in 2020. Credit: Fred Zwicky

University of Illinois Urbana-Champaign electrical and computer engineering professor Lav Varshney is a co-author of a new study that



explores how social capital influences choices regarding COVID-19 mitigation compliance. Illinois News Bureau physical sciences editor Lois Yoksoulian spoke with Varshney about the lessons learned from this study and how they may help in other public health crises.

What is social capital?

Social capital measures how well connected we are to our families, communities, workplaces and religious groups. It is a form of capital that produces public goods for a common purpose. Social capital is determined using demographic factors such as family unity, family interaction, social support, community health, institutional health and philanthropy.

What is the relationship between social capital and public health—and COVID-19 in particular?

Previous studies correlate <u>social capital</u> to mortality, obesity, diabetes and sexually transmitted diseases, but the relationship between social capital and infectious diseases like COVID-19 is not as well-understood. We found that early in the COVID-19 pandemic, high levels of social capital were associated with a slower spread of the virus, but it was unclear which specific aspects of social capital correlated with public health behaviors.

How did you determine the aspects of social capital that are most influential to public health behavior during the COVID-19 pandemic?

We looked at data from the Social Capital Project for the four aspects of social capital that vary the most throughout the country. Those aspects



are family unity; <u>community health</u>, which measures how involved a population is in activities like volunteering and religious activities; institutional health, which reflects a community's level of participation in elections and census surveys, and its confidence in institutions like the media, corporations and schools; and collective efficacy, which quantifies how willing an area is to work to improve its community.

We then compared the social capital data with <u>vaccination rates</u>, vaccination hesitancy, mask usage and mobility, or how frequently and far people moved around from day to day within recreational and residential areas.

What are some of the key findings from this study?

We found that vaccination correlates well with institutional health, meaning that places with a high level of institutional health have a high vaccination rate and areas with a low level of institutional health have greater vaccination hesitancy. Also, masking compliance and mobility are low in areas lacking religious activities and volunteering participation. Further, we found that mobility in residential locations, such as visiting friends or family at home, correlates well with family unity.

We found that a population's overall measure of social capital—high or low—has the most impact on two public health behaviors: vaccination rate and residential mobility.

How might the lessons learned in this study help during the next pandemic?

Given that certain localities are better matched to particular public health behaviors from a social capital perspective, policymakers may want to



emphasize and encourage well-matched behaviors.

Some <u>public health</u> behaviors that mitigate pandemic spread, such as masking and physical distancing, or low mobility, may also create a crisis of loneliness and other mental health challenges that weaken social bonds in families and communities. In preparation for future <u>public</u> <u>health crises</u>, it will be helpful to strengthen social capital, perhaps through increased online interaction and socializing.

The research was published in *PLOS ONE*.

More information: Ibtihal Ferwana et al, Social capital dimensions are differentially associated with COVID-19 vaccinations, masks, and physical distancing, *PLOS ONE* (2021). DOI: 10.1371/journal.pone.0260818

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