

Hospital Engagement in the Social Determinants of Health in Texas: Insights from a National Survey of US Hospitals

Background

Hospitals have the potential to play a significant role in addressing health inequities in the communities they serve. This is particularly true in Texas, a state that exhibits some of the starkest disparities in health care coverage, access, and health outcomes across their diverse population. The disproportionate impact COVID-19 has had on marginalized groups has brought renewed attention to improving disparities in health care and across socially vulnerable communities. Particular focus has been devoted to understanding and addressing how the social determinants of health (SDOH) have contributed to and exacerbated COVID-19-related morbidity and mortality, and other health conditions that contribute to stark differences in health outcomes and life expectancy between racial and ethnic groups.

Because of this, health systems and hospitals have started to shift more of their focus to trying to understand and address the SDOH among their patient populations. Efforts among hospitals to address these factors likely vary considerably. However, to date, there has been limited data evaluating the extent to which hospitals have engaged with SDOH of patient populations, and importantly, the specific challenges hospitals in Texas face related to this issue.

Therefore, in this first report, we examined hospital responses of a national survey from the American Hospital Association (AHA). Specifically, we used the first of its kind SDOH supplement that surveyed hospitals across three domains of SDOH engagement. The three domains include: 1) screening of social needs, 2) programs and interventions to address SDOH, and 3) community partnerships with external partners to address SDOH.

Nationwide results across US hospitals were recently published in JAMA Health Forum. Harvard researchers found that there is wide variability in the number of strategies hospitals report using to address SDOH. Of particular concern was the finding that hospitals that disproportionately care for more vulnerable populations (including safety-net hospitals, critical access hospitals, and rural hospitals) are not doing more, and in some cases doing much less, to address the social needs of their patients and their communities, including implementation of programs and interventions to address SDOH and the extent to which they participate in community partnerships. Below, we review in further detail the Texas-specific results across 346 hospitals that responded to the survey. Importantly, we analyze results by different hospital characteristics and also compare how Texas' hospitals fared relative to other hospitals across the country.

Methodology

For this study, Harvard researchers used the novel 2020 American Hospital Association (AHA) Annual Survey SDOH items, which surveyed hospitals' efforts across three domains: screening of SDOH, programs/interventions to address SDOH, and community partnerships. The screening domain assessed whether hospitals screened across 9 different types of social needs (housing, food insecurity/hunger, utility needs, interpersonal violence, transportation, employment/income,

education, social isolation, and health behaviors). The programs & intervention domain reported on whether they had programs to address these 9 SDOH. The community partnership domain assessed whether hospitals worked with 14 types of external partners to: 1) meet patient social needs, 2) participate in community health needs assessments, and 3) implement community-level initiatives to address SDOH (up to 42 potential efforts). The 14 types of external partners including other health care providers outside the hospital system, health insurance providers outside the health system, local or state public health departments, social service organizations, faith-based organizations, local organizations that address food insecurity, local organizations that affect housing insecurity, local organizations that address transportation needs, local organizations that provide legal assistance for individuals, other community non-profit organizations, K-12 schools, colleges or universities, local businesses or chambers of commerce, and law enforcement and safety officers.

The study sample was limited to general acute care hospitals. Scores were weighted for survey response. Separate multivariable linear regression models were then performed, with the three index scores as dependent outcomes, with hospital characteristics as predictors.

Key Findings

Nationally, there were 2,734 acute care hospitals out of 4,295 US hospitals that responded to the survey, reflecting a response rate of 64%. In the state of Texas, 91% of surveyed hospitals filled out the survey, which is a reassuring response rate.

We first compared the results of how Texas' hospitals compared to hospitals in other US states. Across the screening domain, we find that hospitals in Texas perform similarly to other hospitals in the other 49 states (see **Table 1**). On average, across 9 social needs, Texas' hospitals report screening for an average of 5.14 social needs while other US hospitals report screening for an average of 5.12 social needs. On the programs and interventions domain, Texas' hospitals report having programs and interventions to address an average of 5.65 social needs out of a total of 9 vs. 5.63 in other US hospitals. Therefore, overall, across these two domains, it is reassuring that hospitals in Texas are performing similarly to the national average.

Table 1. Differences in the Hospital-Reported Efforts to Address Social Needs Across Texas' Hospitals vs. Other Hospitals in

SDOH Domain	Texas' Hospitals	Hospitals in Other 49 States	Difference
Screening for SDOH	5.14	5.12	0.02
Programs & Interventions to Address SDOH	5.65	5.63	0.02
Community Partnerships	15.86	18.31	-2.45

However, on the community partnerships domain, Texas' hospitals report participating in 2.45 fewer community partnerships than those in other US states (15.86 partnerships vs. 18.31 partnerships) out of a total of 42 possible partnerships. These findings are somewhat concerning, as these results were statistically significant with P value <0.01 even after adjusting for hospital characteristics, like hospital size, teaching status, and rurality.

In additional analyses, we examined differences in SDOH engagement across the three different SDOH domains by hospital characteristics. There were six specific hospital types that were examined: 1) rural vs. urban hospital status, 2) safety-net hospital status, 3) critical access hospital status, 4) hospital size, 5) teaching status, and 6) ownership/profit status.

In Texas, we did not find statistically significant differences between hospitals that serve more vulnerable patient populations, though there were concerning trends in fewer community partnerships for rural hospitals and critical access hospitals (**Table 2**). There were also no significant differences in safety-net hospitals vs. non-safety-net hospitals across the three domains. This contrasted with the national findings published in JAMA Health Forum, which found that hospitals serving more vulnerable populations in some cases were significantly less likely to engage in SDOH activities.

Table 2. Differences in the Texas' Hospital-Reported Efforts to Address Social Needs Among Hospitals Serving Vulnerable Populations

Hospital Characteristics	Screening for Social Determinants		Programs/Interventions to Address Social Determinants		Community Partnerships with External Partners	
	Mean No.	Difference Estimate	Mean No.	Difference Estimate	Mean No.	Difference Estimate
Hospitals Serving Vulnerable Populations						
Rural/Urban						
Rural	4.99	-0.29	4.75	-0.44	12.06	-1.42
Urban	5.28	Ref.	5.22	Ref.	13.48	Ref.
Safety-Net						
Yes	5.31	0.36	4.79	-0.11	13.48	0.44
No	4.95	Ref.	4.89	Ref.	13.04	Ref.
Critical Access						
Yes	4.95	-0.12	4.60	-0.35	12.04	-1.50
No	5.07	Ref.	4.95	Ref.	13.54	Ref.

Across the other types of hospital characteristics (**Table 3**), we observed trends that matched closely with national results. In the state of Texas, there was a trend to suggest that smaller hospitals compared to larger hospitals were less likely to report engaging in efforts to address SDOH across all 3 domains. Non-teaching hospitals relative to major teaching hospitals were also less likely to report engaging in SDOH activities across all three domains. The results, however, were not statistically significant at the P=0.05 level after adjusting for other hospital characteristics. To some extent, we believe that the small sample size in Texas (vs. the sample size when examining across all US hospitals) is influencing these results.

On the community partnership domain, however, we found that for-profit hospitals in the state of Texas are doing significantly fewer partnerships (by 8.11 out of an index score of 42) than non-profit hospitals. This difference was statistically significant with a P-value <0.01.

Table 3. Differences in the Texas' Hospital-Reported Efforts to Address Social Needs by Hospital Size, Teaching Status, and Profit Status

Hospital Characteristics	Screening for Social Determinants		Programs/Interventions to Address Social Determinants		Community Partnerships with External Partners	
	Mean No.	Difference Estimate	Mean No.	Difference Estimate	Mean No.	Difference Estimate
Other Hospital Characteristics						
Size						
Large	5.20	0.31	5.32	0.66	15.45	2.97
Medium	5.19	0.30	4.99	0.34	13.58	1.10
Small	4.89	Ref.	4.66	Ref.	12.48	Ref.
Teaching						
Major teaching	6.74	1.74	6.18	1.42	17.77	4.88
Minor teaching	4.80	-0.20	4.92	0.16	13.41	0.52
Non-teaching	5.00	Ref.	4.76	Ref.	12.89	Ref.
Ownership						
Non-profit	5.41	0.05	5.37	0.54	18.29	8.11
Public	3.88	-1.47	4.05	-0.79	9.68	-0.50
For-profit	5.36	Ref.	4.83	Ref.	10.18	Ref.

Note:

Estimated differences with 95% CIs that did not cross zero are bolded, reflecting statistically significant results at the p<0.05 level.

Conclusions

Based on results from a national survey of US hospitals, these results highlight for the first time the state of reported efforts to address the social determinants of health across 91% of acute care hospitals surveyed in the state of Texas. Relative to the rest of the nation, it was reassuring to observe that Texas' hospitals report screening a similar number of social needs of their patient populations, and importantly, a similar number of programs and interventions to address these needs compared to other hospitals across the country. However, Texas hospitals were concerningly less likely to participate in community partnerships to address SDOH compared to the average US hospital.

These results suggest that Texas hospitals need to potentially develop and invest more partnerships with external community organizations to address the social determinants of health of their patients and communities. The lack of community engagement is especially concerning in rural areas, where low population density and possibly the absence of formal organizations to collaborate with may limit the hospitals' abilities to make meaningful connections. If formal organizations are not present for hospitals to engage with, they should think creatively about other types of community partnerships that may assist in understanding and reducing the impact of the SDOH.

Results also suggest possible concern of smaller hospitals and non-teaching hospitals being less likely to engage with SDOH. These results may simply reflect fewer financial resources to invest in meeting the needs of patients and their communities. Of particular concern was the finding of significantly fewer strategies reported by for-profit hospitals relative to non-profit hospitals, especially related to community partnerships. Currently, for-profit hospitals do not have to meet the same obligations as non-profit hospitals that must participate in community benefit spending as part of their charitable tax status requirements. This finding was similar in Texas as it was for hospitals across the country, and it may require additional state and federal oversight to ensure patients of these hospitals have similar assistance with their social needs as do other patients in non-profit health systems.

Engagement with SDOH is an incredibly valuable tool for hospitals to build better care pathways for patients and improve their health and outcomes. As the economy continues to lag in its recovery and populations continue to age with rising multimorbidity, it will remain important for hospitals and health systems to continue to prioritize addressing the social determinants of their patients and communities. These results offer where Texas' hospitals currently stand compared to the rest of the nation, and they can offer a benchmark of how best to move forward to continue serving the needs of their patients.

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