

Results of a Health Science Education Innovation Culture Survey

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Background: The Research, Innovation, Scholarship, and Education (RISE) initiative developed a Health Science Education Innovation (HSEI) Culture Survey to better understand the degree to which our Michigan Medicine cultivates a culture of health science education innovation through actions, behaviors and an environment that supports and drives innovation.

Actions, Methods, or Intervention: We developed a 21-item innovation culture survey based on the innovation literature, then vetted by members of a core team responsible for leading an institutional innovation initiative. This biennial survey was administered to all members of the Michigan Medicine community (medical school and health system) in both 2019 (just before RISE launched) and 2021 via a series of targeted email campaigns, inviting all members to share their important insights regarding the innovation culture in education. We used independent samples t-tests to explore statistically significant differences between the two years of survey response data.

Results: We saw a growth in response numbers (308=2019; 400=2021), including faculty, staff and learners and a balanced representation from clinical and basic science departments and the medical school. Since the last survey administration, there has been no change in respondents reporting they observed (2019: 61%, 2021: 68%, t-test $p=.099$) or participated in (2019: 52%, 2021: 50%, t-test $p=.845$) HSEI, and >90% of respondents believe HSEI is important and can impact health (2019: 88%, 2021: 93%, t-test $p=.382$). More respondents recognized that everyone at MM is responsible for HSEI (2019: 38%, 2021: 48%, Chi-square=7.284, $df=1$, $p=.007$), not just leadership, and more also believe that MM is taking steps to promote HSEI. Also, recent results highlight respondents' increased awareness of how to engage in education innovation (2019: 31%, 2022: 41%, t-test $p=.003$), where to find assistance implementing innovative ideas (2019: 30%, 2021: 43%, t-test $p=.001$), and the effectiveness of HSEI at MM (2019: 24%, 2021: 37%, t-test $p=.000$). However, a fewer respondents understand MM's goals for HSEI (2019: 48%, 2021: 47%, t-test $p=.651$) and believe that MM promotes risk-taking behavior to support HSEI (2019: 29%, 2021: 37%, t-test $p=.069$), both unchanged from 2019. Still, more respondents in 2021 believed that MM fostered a work environment that allowed employees to try new things and continue to strongly assert that Michigan Medicine is a leader in education innovation (2019: 55%, 2021: 61%, t-test $p=.041$).

Lessons Learned: While we see modest increases in the overall perception that Michigan Medicine dismantles barriers to innovation and provides an environment that supports creativity, these are still perceived as areas for future growth. Etiologies for detected increases are unclear, but align with the implementation of the RISE initiative. Protected time and resources remain the most important ways the respondents believe they can be supported their involvement in HSEI going forward.

Future Application and Next Steps: Based on these results, combined with other statistical analyses, we have made several changes for the next survey, which will launch in 2023. We will continue to administer this survey to our community to further understand our own culture around innovation and gain important insight into how to best support HSEI at Michigan Medicine. We will also continue to share our survey results and lessons learned, so that we can continue to evolve as an innovation community.