Health Science Education
Innovation Culture Survey Results

Total Respondents: 400
Survey Period: January 2021 - April 2021
Executive Summary

Our biennial RISE Health Science Education Innovation (HSEI) Culture survey invites all members of the Michigan Medicine (MM) community to share important insights regarding our innovation culture in education. The survey was administered to all of MM in 2019 and 2021, with a growth in response (308=2019; 400=2021). Respondents include faculty, staff and learners, with 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 (68%) or participated in (50%) HSEI, and >90% of respondents believe HSEI is important and can impact health. More respondents recognized that everyone at MM is responsible for HSEI, 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 (41%), where to find assistance implementing innovative ideas (43%), and the effectiveness of HSEI at MM (37%). However, a minority of respondents understand MM’s goals for HSEI (47%) and believe that MM promotes risk-taking behavior to support HSEI (37%), both unchanged from 2019. That being said, 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. Protected time and resources remain the most important ways the respondents believe they can be supported in their HSEI involvement going forward.
Respondent Demographics
What is your employment classification?

<table>
<thead>
<tr>
<th>Category</th>
<th>2019 Respondents</th>
<th>2021 Respondents</th>
<th>MM Community*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faculty</td>
<td>30%</td>
<td>37%</td>
<td>11%</td>
</tr>
<tr>
<td>Staff</td>
<td>33%</td>
<td>49%</td>
<td>78%</td>
</tr>
<tr>
<td>Resident/Fellow</td>
<td>4%</td>
<td>13%</td>
<td>7%</td>
</tr>
<tr>
<td>Medical student</td>
<td>11%</td>
<td>10%</td>
<td>2%</td>
</tr>
<tr>
<td>Graduate student</td>
<td>1%</td>
<td>7%</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
<td>4%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Respondents: 2019=308; 2021=400; MM Community=29,716

*MM community data extracted from FY2020 MM employee data found here: Michigan Medicine Facts & Figures University HR Workforce Metrics and AY2021 MM learner data found here: University of Michigan Medical School Facts & Figures.
What do you identify as your primary affiliation within Michigan Medicine?

2019: N=286; 2021: N=400
How many years have you worked at the University of Michigan?

- **Less than 1 year**: 8% (2019), 8% (2021)
- **1-5 years**: 35% (2019), 36% (2021)
- **6-10 years**: 17% (2019), 21% (2021)
- **11-15 years**: 13% (2019), 11% (2021)
- **16-20 years**: 13% (2019), 10% (2021)
- **21 years or more**: 14% (2019), 16% (2021)

2019: N=306; 2021: N=400
Reported Participation in HSEI
I observe(d) innovation in health science education happening within Michigan Medicine.

There was NO significant difference in the number of respondents who indicated agreement (“strongly agree” or “agree”) in 2021 (M=3.70, SD=0.92) compared to 2019 results (M=3.57, SD=0.94), t(598)=1.651, p = .099.
I participate(d) in innovation in health science education happening within Michigan Medicine.

There was NO significant difference in the number of respondents who indicated agreement (“strongly agree” or “agree”) in 2021 (M=3.28, SD=1.14) compared to 2019 results (M=3.29, SD=1.22), t(609)=-0.195, p =.845.

2019: N=248; 2021: N=363
We are very interested in learning about specific education innovations at Michigan Medicine. Please tell us about an education innovation you observed or created. Share any details you feel are important.

Training and curricula: 58
Technology: 15
Simulation: 11
Assessment and feedback: 6

2021: N=400 (NOTE: this question is new for 2021)

Open-ended responses from respondents were collapsed into these four categories; data presented represents total responses for each selection.
Perceptions of HSEI at Michigan Medicine
Innovation in health science education at Michigan Medicine can make a difference in health.

2019: N=265; 2021: N=350

There was NO significant difference in the number of respondents who indicated agreement (“strongly agree” or “agree”) in 2021 (M=4.37, SD=0.65) compared to 2019 results (M=4.32, SD=0.77), t(514)=0.875, p = .382.
In your opinion, who is responsible for driving innovation in health science education at Michigan Medicine?†

- **Institutional Leadership (President, Vice President, Provost, etc.)**
  - 2019: 42%
  - 2021: 42%

- **Michigan Medicine Senior administration (Deans, Directors, Department heads)**
  - 2019: 53%
  - 2021: 56%

- **Faculty (clinical and science)**
  - 2019: 36%
  - 2021: 47%

- **Trainees (medical students, graduate students, residents, fellows, nursing students)**
  - 2019: 16%
  - 2021: 20%

- **Staff (managers, technical, clerical)**
  - 2019: 21%
  - 2021: 25%

- **A select group of people specifically assigned to innovative tasks**
  - 2019: 16%
  - 2021: 20%

- **Everyone at Michigan Medicine**
  - 2019: 38%
  - 2021: 48%

- **No one**
  - 2019: 1%
  - 2021: 3%

- **Not Applicable (i.e. no opportunity to assess/no opinion)**
  - 2019: 3%
  - 2021: 2%

- **Other**
  - 2019: 3%
  - 2021: 2%

2019: N=309; 2021: N=400

†Data presented represents percentage of responses for each selection; respondents were asked to “check all that apply.”

*There was a significant increase in the number of respondents who selected “Faculty” (Chi-square=11.270, df=1, p=.001), “Trainees” (Chi-square=8.260, df=1, p=.004), and “Everyone at Michigan Medicine”(Chi-square=7.284, df=1, p=.007) in 2021 compared to 2019 results.
Which measure(s) does Michigan Medicine take to promote innovation in health science education?†

![Bar chart showing the percentage of respondents who selected each measure in 2019 and 2021.]

- *Provides employees with financial support to develop ideas*
  - 2019: 32%, 2021: 41%
- *Provides employees with technological resources to develop ideas*
  - 2019: 11%, 2021: 21%
- *Breaks down barriers to innovation (e.g. administrative “red tape”)*
  - 2019: 18%, 2021: 26%
- *Creates a spatial environment where employees are able to work creatively*
  - 2019: 23%, 2021: 36%
- *Gives employees the freedom to develop innovative projects during work hours*
  - 2019: 17%, 2021: 20%
- Encourages employees to attend activities outside of work to gain additional knowledge
  - 2019: 20%, 2021: 26%
- *Provides training opportunities that support the development of innovation*
  - 2019: 20%, 2021: 21%
- Not Applicable (i.e. no opportunity to assess/no opinion)
  - 2019: 17%, 2021: 20%

2019: N=309; 2021: N=400

†Data presented represents percentage of responses for each selection; respondents were asked to “check all that apply.”

*There was a significant increase in the number of respondents who selected “Financial support” (Chi-square=5.256, p=.022), “Technological resources” (Chi-square=8.270, p=.004), “Breaks down barriers” (Chi-square=12.372, p=.000), “Creates a spatial environment” (Chi-square=5.667, p=.017), “Gives employees the freedom” (Chi-square=13.763, p=.000), and “Provides training” (Chi-square=26.221, p=.000) in 2021 compared to 2019 results.
I understand Michigan Medicine’s goals for innovation in health science education.

There was NO significant difference in the number of respondents who indicated agreement ("strongly agree" or "agree") in 2021 (M=3.25, SD=0.99) compared to 2019 results (M=3.29, SD=1.04), t(691)=-0.452, p = .651.
Michigan Medicine promotes positive risk-taking behavior to support innovation in health science education.

There was NO significant difference in the number of respondents who indicated agreement (“strongly agree” or “agree”) in 2021 (M=3.07, SD=1.04) compared to 2019 results (M=2.91, SD=0.98), t(575)=1.822, p = .069.
Improved Perceptions of HSEI
My work is positively influenced by innovations that happen in health science education.*

2019: N=252; 2021: N=335

*There was a significant increase in the number of respondents who indicated agreement (“strongly agree” or “agree”) in 2021 (M=3.64, SD=.92) compared to 2019 results (M=3.46, SD=1.06), t(497)=2.258, p =.024.
Michigan Medicine is a leader in innovation in health science education.*

*There was a significant increase in the number of respondents who indicated agreement ("strongly agree" or "agree") in 2021 ($M=3.67$, $SD=.87$) compared to 2019 results ($M=3.51$, $SD=1.01$), $t(503)=2.046$, $p = .041$. 

2019: N=256; 2021: N=322
Michigan Medicine fosters a work environment that allows employees to break new ground (i.e. transcend barriers/constraints) in order to try new things **within** one’s prescribed role.*

*There was a significant increase in the number of respondents who indicated agreement (“strongly agree” or “agree”) in 2021 (M=3.40, SD=1.03) compared to 2019 results (M=3.07, SD=1.05), t(623)=3.938, p=.000.
Michigan Medicine fosters a work environment that allows employees to break new ground (i.e. transcend barriers/constraints) in order to try new things outside one’s core work responsibilities.*

![Bar chart showing percentage of responses from 2019 and 2021.]

2019: N=274; 2021: N=347

*There was a significant increase in the number of respondents who indicated agreement (“strongly agree” or “agree”) in 2021 (M=3.02, SD=1.03) compared to 2019 results (M=2.69, SD=1.00), t(609)=3.940, p=.000.
Improved Awareness of HSEI
I know how to get involved in innovation in health science education at Michigan Medicine.*

*There was a significant increase in the number of respondents who indicated agreement (“strongly agree” or “agree”) in 2021 ($M=3.04$, $SD=1.09$) compared to 2019 results ($M=2.79$, $SD=1.12$), $t(675)=2.948$, $p=.003$. 

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<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2021</th>
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<tbody>
<tr>
<td>Strongly Agree</td>
<td>6%</td>
<td>7%</td>
</tr>
<tr>
<td>Agree</td>
<td>25%</td>
<td>34%</td>
</tr>
<tr>
<td>Neutral</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Disagree</td>
<td>32%</td>
<td>27%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>0%</td>
<td>13%</td>
</tr>
</tbody>
</table>
I know where to seek help for implementing an innovative idea in health science education.*

2019: N=268; 2021: N=356

*There was a significant increase in the number of respondents who indicated agreement ("strongly agree" or "agree") in 2021 (M=3.04, SD=1.12) compared to 2019 results (M=2.74, SD=1.08), t(622)=3.477, p=.001.
I am made aware of the effectiveness (e.g. outputs/results) of innovation in health science education initiatives at Michigan Medicine.*

![Chart showing survey results]

2019: N=263; 2021: N=339

*There was a significant increase in the number of respondents who indicated agreement ("strongly agree" or "agree") in 2021 (M=3.00, SD=1.06) compared to 2019 results (M=2.68, SD=1.06), t(600)=3.621, p =.000.
What Will Help Support HSEI?
What factor(s) can support your involvement in innovation in health science education at Michigan Medicine?†

- Protected time
- Resources (e.g. funding, technology)
- Culture (e.g. hierarchy, resistance to change)
- Awareness of opportunities
- Access to opportunities

2019: N=309; 2021: N=400

† Open-ended responses from respondents were recoded into these five categories; data presented represents total responses for each selection.