



---

March 2023

## Preceptors' Experiences Training Public Health Interns in Remote Workplace Settings

Olivia S. Anderson

*University of Michigan, oliviasa@umich.edu*

Ella August

*University of Michigan, eaugust@umich.edu*

Follow this and additional works at: <https://nsuworks.nova.edu/ijahsp>



Part of the [Higher Education Commons](#), [Other Education Commons](#), and the [Public Health Commons](#)

---

### Recommended Citation

Anderson OS, August E. Preceptors' Experiences Training Public Health Interns in Remote Workplace Settings. *The Internet Journal of Allied Health Sciences and Practice*. 2023 Mar 20;21(2), Article 16.

This Manuscript is brought to you for free and open access by the College of Health Care Sciences at NSUWorks. It has been accepted for inclusion in *Internet Journal of Allied Health Sciences and Practice* by an authorized editor of NSUWorks. For more information, please contact [nsuworks@nova.edu](mailto:nsuworks@nova.edu).

---

## Preceptors' Experiences Training Public Health Interns in Remote Workplace Settings

### Abstract

**Background:** The discourse around COVID-19 related challenges to classroom instruction has been highly visible, but little has been published on learning experiences outside the classroom that prepare students to work in the “real world.” **Method:** We interviewed five Master of Public Health internship preceptors about their experience in 2020 with student interns to formulate pertinent survey questions to distribute to a larger sample. Our questionnaire included closed- and open-ended questions regarding student attributes and skills that shaped the success of the internship. Data were collected from internships sites of one midwestern university. **Results:** Nearly all 26 preceptors that responded to our survey supervised fully remote internships. Internship sites included academic centers, private companies, non-profits, health systems, and others. Self-motivation, flexibility and organizational skills were considered key student attributes essential to succeed in a remote internship. Being uncomfortable in an online environment or being hesitant or passive were considered student attributes that made remote internships challenging. Preceptors reported that 2020 interns developed different skills compared to previous years, notably, those related to working in an online environment, intrapersonal skills like resilience, and technical skills, such as spatial analysis. **Conclusion:** As modes of learning and work continue to evolve, internship preceptors will need to learn and adapt to what it takes to support interns to develop relevant skills for remote or hybrid public health work environments. In the meantime, offering clear communication, support, and normalizing remote work cultures may enhance interns' ability to fully engage and while maintaining the attributes necessary to make internships a success.

---

### Author Bio(s)

Dr. Olivia S. Anderson, PhD, MPH, RD, is a Clinical Associate Professor at University of Michigan School of Public Health, Department of Nutritional Sciences in Ann Arbor, MI USA. She is a licensed registered dietitian.

Dr. Ella August, PhD, MA, MS, is a Clinical Associate Professor at University of Michigan School of Public Health, Department of Epidemiology in Ann Arbor, MI USA.

---

### Acknowledgements

This project would not have been possible without the University of Michigan Edward Ginsberg Center who helped us recruit community partners. Max Ansorge and Kate Wilhelmi, staff at the University of Michigan School of Public Health also helped with the initial inception of this work. We are grateful to our community partners.



The Internet Journal of Allied Health Sciences and Practice

*Dedicated to allied health professional practice and education*

Vol. 21 No. 2 ISSN 1540-580X

---

## Preceptors' Experiences Training Public Health Interns in Remote Workplace Settings

---

Olivia S. Anderson  
Ella August

University of Michigan

United States

---

### ABSTRACT

**Background:** The discourse around COVID-19 related challenges to classroom instruction has been highly visible, but little has been published on learning experiences outside the classroom that prepare students to work in the “real world.” **Method:** We interviewed five Master of Public Health internship preceptors about their experience in 2020 with student interns to formulate pertinent survey questions to distribute to a larger sample. Our questionnaire included closed- and open-ended questions regarding student attributes and skills that shaped the success of the internship. Data were collected from internships sites of one midwestern university. **Results:** Nearly all 26 preceptors that responded to our survey supervised fully remote internships. Internship sites included academic centers, private companies, non-profits, health systems, and others. Self-motivation, flexibility and organizational skills were considered key student attributes essential to succeed in a remote internship. Being uncomfortable in an online environment or being hesitant or passive were considered student attributes that made remote internships challenging. Preceptors reported that 2020 interns developed different skills compared to previous years, notably, those related to working in an online environment, intrapersonal skills like resilience, and technical skills, such as spatial analysis. **Conclusion:** As modes of learning and work continue to evolve, internship preceptors will need to learn and adapt to what it takes to support interns to develop relevant skills for remote or hybrid public health work environments. In the meantime, offering clear communication, support, and normalizing remote work cultures may enhance interns' ability to fully engage and while maintaining the attributes necessary to make internships a success.

**Keywords:** internships, master of public health, preceptors, public health skills, public health training, remote work environment

---

## INTRODUCTION

As the COVID-19 pandemic endures, there is a continued shift in the state of higher education across health professions training.<sup>1</sup> Such programs have adapted to online, remote, and hybrid modalities to support learning within the context of a classroom.<sup>2</sup> With the advanced use of technology throughout the COVID-19 pandemic to support classroom learning, course content has been accessible without students having to attend class in person, thus incoming and current students' expectations for how they experience their education are also evolving.<sup>3</sup> Health sciences instructors can expect that many of these COVID cohorts, students who were impacted by COVID-19, have never or rarely set foot in a physical classroom space with their peers or instructors. Additionally, COVID cohorts may not have the same type of skills or preparation levels as they transition to learning outside of the classroom such as within applied practice experiences.

Health professional trainees gain crucial skills through experiential, hands-on learning, but it has been difficult to provide internships, rotations, and clinical placements during the COVID-19 pandemic. Applied experiences that offer flexible student engagement yet allow for meaningful skill development are needed to balance COVID-19 safety and professional development goals.<sup>2</sup> We are now experiencing a new effect from the pandemic as health profession students who started college during lock down with exclusive remote or hybrid learning are expected to engage in experiential learning, internships, or other hands-on learning, whether in-person or remotely. These health profession students who experienced the first part of their education in the peak of remote learning, and shifted to a more flexible learning environment, may find it difficult to engage with professionals in their field during required applied practice experiences.

Several reports have explored the experiences of health professional trainees who engaged in experiential learning during the COVID-19 pandemic, but to fully understand the changing state of this aspect of training, it is essential to understand preceptors' perspectives.<sup>4,5</sup> Preceptors play a significant role in fostering skills and providing real-life public health work experiences to public health trainees. Additionally, skills required of current day professionals are shifting and projected to be more focused on technology use, self-management, and social influence within the next decade.<sup>6</sup> A few reports from medicine and pharmacy have indicated that preceptors are trying to adapt to the changing state of experiential learning such as shifting expectations in types of skills to be developed or the number of contact hours, but the best way forward is unclear.<sup>7,8</sup>

Master of public health (MPH) programs require trainees to engage in applied practice experiences to gain real-world skills to be effective practitioners. Thus, it is important to understand how public health preceptors must adapt to the changing state of higher education to adequately support the development of public health skills among trainees. In this brief report we aim to 1) describe the attributes of students that the preceptor viewed as challenges to or facilitators of a successful internship, and 2) describe how the development of skills differed from before the pandemic from the perspectives of public health internship preceptors.

## METHODS

Public health internship preceptors for internships carried out in 2020 were identified through a school of public health at a large midwestern university.

A qualitative interview was conducted with five preceptors in the Fall of 2020 focusing on internships for MPH students held over the summer in 2020. The interview questions were as follows: 1) Were the internship activities modified to adapt to COVID-19 restrictions, e.g., social distancing, remote work environment? If so, did the modifications allow for a meaningful experience for the student?; 2) Did the modifications allow the intern to provide meaningful support to you [community partner]?

The preceptor interviews revealed that certain student attributes within the context of an online or hybrid internship were ideal to build rapport with the intern and meet the goals of the internship. Preceptors also explained that the interpersonal and technical skills that students developed differed from pre-COVID internships. Responses from the interviews informed the development of a survey that included closed- and open-ended questions covering characteristics of the internship sites, student attributes that facilitated or inhibited success of the internship, and skills that students developed (Appendix). Specifically, there were two close-ended questions intended to collect information about the organization and its distance from the University's location. One close-ended question focused on the modes of interaction with interns (virtual, onsite, both). Finally, two open-ended questions asked participants to describe intern attributes that made the internship more successful and less successful, and one question asked participants if interns learned different skills than pre-covid interns (yes/no/unsure). If the interns did learn different skills, preceptors were asked to list them. The survey was sent via Qualtrics to all 79 preceptors in the School of Public's database for 2020 internships.

Means from close-ended survey questions were calculated. Open-ended responses were analyzed for themes using an inductive thematic analysis approach. Frequencies of themes were calculated.

## RESULTS

Of 79 preceptors that the survey was sent to, 26 (33%) responded. Most preceptors supervised internships within the context of an academic institution or private company while about one-third held internships within a non-profit or health system (Table). Most internship offerings were local. An overwhelming majority of preceptors had interns that worked 100% remotely.

**Table.** Preceptor site characteristics (N=26) for MPH internships

| Demographic                                                  | Frequency (%) |
|--------------------------------------------------------------|---------------|
| <b>Type of Organization</b>                                  |               |
| Academic institution or center                               | 8 (31%)       |
| Private company                                              | 6 (23%)       |
| Non-profit                                                   | 5 (19%)       |
| Health system                                                | 3 (12%)       |
| Other                                                        | 4 (15%)       |
| <b>Distance from MPH Intern Residence to internship site</b> |               |
| Local                                                        | 20 (77%)      |
| Out of state or country                                      | 6 (23%)       |
| <b>Learning Environment for the Internship<sup>a</sup></b>   |               |
| 100% remote                                                  | 20 (91%)      |
| Hybrid (partly remote and partly in person)                  | 2 (9%)        |

<sup>a</sup>Only 22 respondents answered this question

### Student Attributes that Made MPH Internships More Successful: Preceptor Perspectives

Of the 12 respondents that answered the open-ended survey question “Among your interns, did certain student attributes make the internship more successful during the pandemic? If so, what were they?”, 11 (98%) indicated that students must be self-motivated. As stated by one preceptor, “*Self-motivation was key to a student's success. Since they were remote, it was less likely that they would seek me out to ask a question or guidance.*” Most respondents (7/12, 58%) said that flexibility and some noted organizational skills (3/12, 25%) were key attributes in the remote environment, as stated here, “*The remote work schedule allowed students to balance multiple commitments over the summer, which they did, (other internships, caretaking, etc.). This worked well only for those students who were flexible and very organized with their schedules.*”

### Student Attributes that Made MPH Internships More Challenging: Preceptor Perspectives

Alternatively, nine respondents that reflected on the question “What student attributes made internships successful?” posed their responses as attributes that made internships less successful. Five respondents (5/9, 56%) indicated that being uncomfortable in the online environment or being hesitant or passive in regard to participating/engaging during meetings (4/9, 44%) were barriers to success, as represented here, “*Students who felt like they had to be told what to do were less successful because they did not have the hand-holding they would if in an in-person setting.*”

### Types of Skills that were Developed During the Pandemic: Preceptor Perspectives

When asked whether interns learned different skills than prior to the pandemic in the closed-ended survey question, 13 of 21 (62%) respondents who answered the question indicated “yes”. Thirteen respondents indicated specific skills that interns developed over their internship through an open-ended response. Most skills were related to working in an online environment (6/13, 46%) as one respondent stated, “*Online community engagement and how to provide community support remotely.*” Other specific responses were related to intrapersonal skills (4/13, 31%), like resilience, and technical skills, such as spatial analysis (3/13, 23%).

## DISCUSSION.

As modes of learning continue to evolve and educators adapt to education environments post-COVID-19, MPH internship preceptors must understand how residential public health programs are training students and how that has shifted the preparation levels and ability of incoming interns to succeed. As multiple offerings of experiential learning have occurred amid the pandemic,

we can gain insight from preceptors as to what they are observing and experiencing with incoming interns. This information will support the development of real-life public health skills that match the needs of the 21st century workforce that include technology use, self-management, and social influence, in addition to traditional public health competencies such as analytical, communication, evaluation, and leadership skills. Our findings indicate that specific attributes of interns, namely self-motivation, and the ability to balance obligations outside of a formal in-person work environment facilitate their success in a remote or hybrid work environment. We also learned that the intrapersonal skills required to succeed in these types of public health work environments are different than those in traditional in-person work settings.

Preceptors' expectations for public health interns to be self-motivated during their internships are not surprising or necessarily different from pre-COVID experiential learning, but the context of our data is the remote working environment.<sup>9</sup> Shifting to work environments that are remote present challenges to all levels of workers, from trainees to seasoned professionals, such as disengagement with colleagues or work content, or taking on multiple tasks like household chores, secondary jobs or childcare due to asynchronous or flexible work environments.<sup>10,11</sup> These types of challenges are similar to what students are experiencing during their training within the classroom and can lead to detachment and lack of motivation to engage in the learning process.<sup>3,12</sup>

### Implications for Practice

To make the most of future internships, preceptors must anticipate that they will need to help interns develop interpersonal skills to match what is needed for successful post-COVID public health work environments that are more flexible and make use of technology to collaborate with colleagues when fully or partially remote. A virtual training model presented by Burgio et al (2020) emphasized the importance of "normalizing the virtual experience" before the remote experience even begins with consistent communication about goals and expectations.<sup>13</sup> This type of normalization can help preceptors to foster skills such as effective online communication skills or how to engage with colleagues virtually.<sup>14</sup> Internship advisors from the field of ecology have provided recommendations such as early and consistent presentations and one-one-meetings as well as intentional breaks to avoid screen burnout.<sup>15</sup> To involve interns in such practices early on, they will develop confidence in not only virtual communication strategies but using other public health skills such as management or leadership strategies through virtual formats. These are skills and a sense of culture that public health trainees may be missing in their classroom learning especially if students are less engaged, and thus, preceptors will be obligated to help students foster such skills or work cultures.

### Limitations

The sample size of this study was small, and we could not stratify findings by type of organization, distance from internship site, or percent of internships that were remote, but we collected valuable qualitative feedback from internship sites that were mostly remote and some that were hybrid. We conducted this work in 2020, the first year of the pandemic, and some internship sites may be back to fully in-person given the availability of the vaccine. It is true, however, that many organizations have maintained changes in work mode, and such changes may be more mainstream moving forward. Overall, the landscape of the workplace is shifting to remote working or flex work environments, so these data remain valuable for public health preceptors taking on students experiencing more flexible classroom learning.

### CONCLUSIONS

As public health preceptors engage interns in remote internships, they must keep in mind that the primary objective is to train interns to develop relevant public health workforce skills. This now entails successful technical and interpersonal skills that support remote interactions as work environments in all fields are moving to be hybrid or remote. Further, preceptors must develop strategies that foster student engagement in virtual experiential learning environments. Public health preceptors are also working remotely and learning how to be a successful professional virtually. Intentional effort and planning will help interns engage in relevant experiences to develop public health skills related to their professional goals and interests.

---

### REFERENCES

1. Kara A. COVID-19 Pandemic and Possible Trends for the Future of Higher Education: A Review. *Journal of Education and Educational Development*. 2021;8(1).
2. Linkov F, Khanijahani A, Swanson-Biearman B, Akinci F. Remote internship: Practical approaches to sustaining student internships amid public health epidemics. *Journal of Health Administration Education*. 2021;38(1).
3. McCutrie B. A Year Harder Than Last. *The Chronicle of Higher Education*. Published online April 7, 2022.
4. Cummings J, McGuire J, Larimer S, Stadler D. Building a Ship While Sailing: Transition to a Virtual Dietetic Internship in Response to COVID-19. *J Acad Nutr Diet*. 2020;120(10).

5. Sasser CW, Wolcott MD, Morbitzer KA, Eckel SF. Lessons learned from pharmacy learner and educator experiences during early stages of COVID-19 pandemic. *American Journal of Health-System Pharmacy*. 2021;78(10). doi:10.1093/ajhp/zxab076
  6. Fischer K. The Skills Revolution. *The Chronicle of Higher Education: New Pathways From College to Career, Preparing students for a Rapidly Changing Workforce*. Published online 2022.
  7. Louiselle K, Elson EC, Oschman A, Duehlmeier S. Impact of COVID-19 pandemic on pharmacy learners and preceptors. *American Journal of Health-System Pharmacy*. 2020;77(14). doi:10.1093/ajhp/zxaa127
  8. Grand D, Schuster VL, Pullman JM, Golestaneh L, Raff AC. Medical Student Experience and Outcomes, as Well as Preceptor Experience, with Rapid Conversion of a Preclinical Medical School Course to a Remote-Based Learning Format in the Setting of the COVID-19 Pandemic. *Medical Science Educator*. 2021;31(6). doi:10.1007/s40670-021-01379-8
  9. Kemper KA, Dye CR, Sherrill WW, Mayo RM. Guidelines for Public Health Practitioners Serving as Student Preceptors. *Health Promotion Practice*. 2004;5(2). doi:10.1177/1524839903258164
  10. Zamora A, August E, Anderson OS. Impact of transitioning to remote learning on student learning interactions and sense of belonging among public health graduate students. *Pedagogy in Health Promotion*. Published online 2022.
  11. Brubaker L. Women Physicians and the COVID-19 Pandemic. *JAMA*. 2020;324(9). doi:10.1001/jama.2020.14797
  12. Fong CJ. Academic motivation in a pandemic context: a conceptual review of prominent theories and an integrative model. *Educational Psychology*. Published online January 19, 202. doi:10.1080/01443410.2022.2026891
  13. Burgio KR, MacKenzie CM, Borrelle SB, et al. Ten Simple Rules for a successful remote postdoc. *PLOS Computational Biology*. 2020;16(5). <https://doi.org/10.1371/journal.pcbi.1007809>
  14. Fischer K. Reimagining Career Planning to Reach All Students. *The Chronicle of Higher Education: New Pathways From College to Career, Preparing students for a Rapidly Changing Workforce*. Published online 2022.
  15. Hruska AM, Cawood A, Pagenkopp Lohan KM, Ogburn MB, Komatsu KJ. Going remote: Recommendations for normalizing virtual internships. *Ecosphere*. 2022;13(3). doi:<https://doi.org/10.1002/ecs2.3961>
-

---

**APPENDIX: Survey Questions****Section 1: Your Organization**

What type of organization are you?

- Health system
- Nonprofit
- Academic institution, center, etc.
- Health department
- Private company
- Other

How far is your organization from XX?

- In the XX area
- Not in the XX area but in XX
- Outside XX but in the XX
- Outside the XX

**Section 2: Describe Modes of Interaction**

Of all students who completed internships at your organization in 2020, did they work onsite or remotely?

- All interns worked 100% onsite
- All interns worked 100% remotely
- There was a mix

**Section 3: Quality and Utility of Internship Experience**

Among ALL 2020 interns, did certain student attributes make the internship experience MORE successful during the pandemic?

If so, what were these attributes? \_\_\_\_\_

Among ALL 2020 interns, did certain student attributes make the internship experience LESS successful during the pandemic? If so, what were these attributes? \_\_\_\_\_

Did the interns learn different skills during this pandemic year that were different compared to previous years? If so, what were they?

- Yes \_\_\_\_\_
  - No
  - We did not have interns prior to this year
  - Not sure
-