

Report 45: Training and Mentoring

Convener: Luz Claudio

Brief History: The workforce engaged in public health is aging. It has been estimated that over 25% of the public health workforce will be retiring within 5 years. There is a need to replenish this workforce in public and environmental health. Further, there is a need for more interdisciplinary training to be applied to environmental health sciences. There is a strong need to engage young people from different disciplines to apply those disciplines to find solutions to environmental health problems. This is timely, as the report from Lancet Commission on Education for Health Professionals in the 21st Century has been issued and defines many of the country's needs for training.

Discussion Highlights: Everyone in the group agreed that there is an acute need for support in training and mentoring in EHS and that this is part of the NIEHS mission. Much of the discussion centered about the need to have young people with multidisciplinary training be engaged in environmental health sciences.

Recommendations:

1. NIEHS can partner with existing programs (from other organizations) that engage trainees at different levels in science and medicine. NIEHS can play an important role in supporting the need for multidisciplinary training as a partner to these organizations because of the multidisciplinary nature of environmental health sciences (EHS can reach engineers, chemists, geneticists, etc through their societies). Some examples of existing programs from other organizations with which NIEHS can partner are:
 - a. SOT Postdoctoral program
 - b. National Postdoctoral Association
 - c. Science Ambassadors Program – for training high school teachers in science curriculum development
 - d. Young Epidemiologists Program
 - e. American Association for the Advancement of Science fellowship program
2. NIEHS has a new person in education and outreach. Perhaps this person can reach out to the organizations above and others that are already doing innovative training and education outreach programs to attract young people into EHS.
3. Add a “cool” tool to the NIEHS website that would be attractive to engage young people in EHS. Use social media and electronic games to engage young people in EHS and to promote the work of NIEHS
4. Develop incentives for faculty to engage in mentoring including more grants that support PIs to conduct mentoring and training

5. Evaluate existing training data tables (submitted by PIs) to assess which types of training programs are most effective in transitioning trainees into faculty positions and success in obtaining research grants. Add other metrics of success in career development.
6. Issue a “Grand Challenges in Environmental Health” award where young people in different disciplines can be supported to find innovative solutions to pressing environmental health problems
7. Have more grants that are given directly to postdocs in order to improve their opportunities to obtain faculty positions and leave the “serial postdoc” treadmill.
8. Continue to support and expand the K-12 outreach and EHS education programs. Engage graduate students and postdocs in these programs.
9. Support multidisciplinary training in the intramural postdoc program by encouraging multiple mentors for trainees
10. Define the goal for international postdocs. Is the goal for them to return to their home country and increase capacity there or to integrate them into the US science workforce? This is an issue because close to 50% of postdocs in science are international postdocs on work or training visas. How can NIEHS play a role in defining the goals for these trainees?
11. Add a requirement in RFAs for training in communication of EHS research results. This would be similar to the current requirement for ethics training.
12. Address attrition in the training ladder due to family issues. Inform NIEHS grantees of the new policies to take into account family leave in productivity gaps. Provide no-cost extensions for grantees who have gaps in productivity due to their own family responsibilities or family leave of their key staff.
13. Add sessions for young participants in existing NIEHS activities such as Town Hall Meetings.
14. Have the Office of Communication provide training in science communication. There could be a virtual course (web-based) and/or an in-person course available to grantees at different levels.
15. Feature different possible career paths for environmental health scientists. Have EHS career days and have career profiles in the NIEHS website that illustrate what EH scientists do and how they use different disciplines to solve EH problems.

Discussion Participants:

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