

February 9, 2022

RESEARCH ROADMAP 2020-2025

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Acknowledgments

This Research Roadmap is the product of significant time and energy invested by many people. The 2021 survey to identify these priorities was developed by the School of Public Health (SPH) Research Council. Liz Lancaster provided helpful input and initial estimates of resource requirements for implementing the Roadmap. Leesa Brown engaged in thoughtful discussions about the Roadmap and provided useful feedback. Kimberly Hay served as the project manager for the development of the Roadmap and created implementation timelines. Caitlin Maloney provided critical review.

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Executive Summary

This Research Roadmap was developed as part of the <u>School of Public Health (SPH) Strategic Plan</u> (2020-2025). It is a key part of Outcome 2 in the Methods to Research to Practice Continuum, which specifies that *"UW SPH will continue to conduct cutting-edge work in methods and research, with priorities implemented according to a roadmap created by the SPH Research Council."* To develop the Research Roadmap, the SPH Research Council conducted a survey in the spring of 2021 to seek input from SPH faculty, staff, and graduate students on priority activities to support research¹. The top priorities fell into four areas encompassing nine activities for the 2020-2025 strategic planning cycle.

- Anti-Racism in Research
 - o Develop a toolkit to assist researchers in integrating anti-racism principles into their research
 - Strengthen support for National Institutes of Health (NIH) diversity supplement applications
- Research Staff Professional Development and Support
 - Identify and create professional development and peer networking opportunities
 - Develop a system to coordinate research study staff when grants begin and end
- Investigator Support in Research
 - Increase support for training grant applications and renewals (joint with Training Opportunities in Research)
 - o Create a repository of resources for the grant lifecycle and other research-related needs
 - o Identify and support a model to provide biostatistical support to investigators
 - o Develop methods to foster cross-disciplinary collaboration
- Training Opportunities in Research
 - Increase support for training grant applications and renewals (joint with Investigator Support in Research)
 - Enhance support for NIH F- and K-award applications

The Research Roadmap outlines each of these priority activities with respect to timeline, milestones, resource and personnel requirements, and monitoring and evaluation indicators. The activities to support and strengthen research in the SPH will be implemented in a staggered fashion, as outlined in Figure 1 below. A more detailed timeline is provided in Appendix C, Figure 2.

Figure 1. Overview of Research Roadmap Timeline, 2020-2025

202	1	2022	2023	2024	2025
Diversity Supplement Workshops and Matching Assistance (ongoing)					
Finalize Roadmap, M&E Plan			Anti-Racism Toolkit		
		Staff Professional Development Activities			
	Training Grant Support				
	F- and K- Award Workshops				
			Web-based	l Repository	
Focus Area Key			C	oordinate Research Study Staff	
Anti-Racism in Research				Fostering New Collaborations	
Research Staff Professional Development and Sup	port			Biostatistica	Support
Investigator Support in Research				Biostatistica	
Training Opportunities in Research					Planning next Roadmap

¹ Excerpts of this report can be found in Appendix A.

Roadmap Focus Areas

The Research Roadmap outlines four key areas. This work for the SPH will work focus on the following over the 2020-2025 Strategic Plan cycle:

- Anti-Racism in Research (pages 4-7)
- Research Staff Professional Development and Support (pages 7-9)
- Investigator Support in Research (pages 10-14)
- Training Opportunities in Research (pages 15-16)

Within these key areas, specific activities to enhance the support for research have been identified and are outlined below with respect to timeline, milestones, resource and personnel requirements, monitoring and evaluation indicators, and potential roadblocks to completion.

Focus Area Number One Anti-Racism in Research

Objectives

Developing a toolkit to help investigators integrate principles of anti-racism into their research activities was the top ranked priority in the 2021 SPH Research Priorities Survey. Similarly, the Diversity Supplement resources web site and Diversity Supplement workshops begun in the 2019-2020 academic year were popular across campus and provided needed guidance and support for investigators and students wishing to leverage this mechanism. Combatting racism in research and the research process, as well as working to enhance the diversity of successful researchers and research teams, is a key part of moving the SPH toward becoming an anti-racist school of public health. Doing so will contribute to our mission to support "groundbreaking discoveries ... fueled by rigorous science and equity-driven solutions²."

Deliverables

- Develop a toolkit to assist researchers in integrating anti-racism principles into their research
- Strengthen support for National Institutes of Health (NIH) diversity supplement applications

DEVELOP A TOOLKIT TO ASSIST RESEARCHERS IN INTEGRATING ANTI-RACISM PRINCIPLES INTO THEIR RESEARCH

Overview

The objective of this toolkit will be to provide examples of where and how racism occurs in research activities, enabling investigators to recognize and address it. The toolkit will also provide examples and resources for investigators to combat racism in their research programs and activities. A working group will be constituted to develop the toolkit. Because respondents to the 2021 SPH Research Priorities Survey felt strongly that the development of this toolkit should be led by BIPOC (black, indigenous, and people of color) researchers, this working group will be comprised primarily of BIPOC researchers in the SPH.

² From the 2020-2025 Strategic Plan North Star: <u>https://sph.washington.edu/about/strategic-plan</u>.

Timeline and Milestones

Timeline	Milestones
November-December 2021	 Form working group Collect recommendations for participants from members of the Research Council and the EDI committees across the School
January-June 2022	Create action plan to complete toolkit
July 2022-June 2023	Complete creation of toolkit
July 2023-June 2024	 Define roll-out plan for toolkit Design trainings on how to use the toolkit, and determine who provides trainings Create marketing and communications plan Define processes for using the toolkit
July 2024-June 2025	Implement roll-out plan for using new toolkit with current and new employees

Measurement and Evaluation

Data Needed	Data Collection, Frequency	Responsibility to Collect, Analyze	Reporting
Evaluations from trainings	Annual	Working Group Research Council	
Survey on Toolkit usefulness	One year after launch	Working Group Research Council	

Project Team

Area	Name
Budget	Liz Lancaster
	Lisa Manhart
Lead	TBD—BIPOC faculty member
Team	Wendy Barrington
	Working Group
Project Manager	Kimberly Hay

Potential Roadblocks and Risks

The development and launching of the toolkit will be dependent upon identifying interested and available persons to engage in this work. BIPOC faculty members are already heavily engaged in anti-racism work and may not have the bandwidth to take on another activity. To minimize this risk, the Research Council will work closely with the new ARCH (Anti-Racism in Community Health) Center, and its inaugural director, Wendy Barrington. If there is difficulty in identifying a group of BIPOC faculty with the bandwidth to engage in this activity, the SPH Office of the Dean (OD) Team³ will investigate alternative methods to accomplish the development of the toolkit, or postpone its development until a group of BIPOC faculty are able to engage in the work.

³ SPH OD Team consists of the Associate Dean for Research, the Director of Finance and Research Administration, and the School-wide Research Administrator.

STRENGTHEN SUPPORT FOR NATIONAL INSTITUTES OF HEALTH (NIH) DIVERSITY SUPPLEMENT APPLICATIONS

Overview

While NIH diversity supplements are a powerful tool to enhance the diversity of public health researchers, the mechanism is complex. It has very specific eligibility requirements and the characteristics that make a potential trainee (e.g., student or post-doctoral fellow) eligible are typically not visible or documented. Eligible trainees must self-identify and then find a faculty mentor with whom to work. To address this, the SPH will create mechanisms to match investigators and trainees with respect to interest and expertise. The SPH will also provide support to investigators and trainees to develop a competitive application, including workshops, expanding a repository of example applications, and other resources.

Timeline and Milestones

Timeline	Milestones
Ongoing, Quarterly-basis	Update list of eligible grants
Ongoing, Quarterly-basis	Maintain web site
Ongoing, Annual-basis	Conduct at least one annual event for faculty and students
November 2021-October 2022	Develop matching system
November 2022-October 2023	Expand matching of diversity candidates with faculty mentors to other UW units with eligible grants

Measurement and Evaluation

Data Needed	Data Collection, Frequency	Responsibility to Collect, Analyze	Reporting
Number of matches made	Annual	SPH OD Team	
Number of proposals written	Annual	SP OD Team	
Number of diversity supplements awarded	Annual	SPH OD Team	

Project Team

Area	Name
Budget	Liz Lancaster
	Lisa Manhart
Lead	Lisa Manhart
Team	Graduate student research assistant
	Denis Brasfield
	Tim Knight
	Fred Hutch Cancer Institute
	Latino Center for Health
	Seattle Children's Hospital
	UW Graduate School
	UW School of Medicine
	UW Undergraduate Office
Project Manager	Kimberly Hay

Potential Roadblocks and Risks

The ongoing support for diversity supplements will depend on the availability of staffing to maintain the already established resources (e.g., web site, list of eligible grants). The ability to continue to deliver workshops will depend on either the re-vitalization of the cross-unit diversity supplement workshop working group, or the creation of a similar entity in the SPH. The success of ongoing workshops will depend on correctly identifying the needs of faculty and trainees (e.g., information dissemination vs. active matching of faculty/student teams), and on developing effective mechanisms to meet those needs. To address these potential roadblocks and risks, the SPH OD will identify a graduate student research assistant to maintain the web site and list of eligible grants, and support annual workshops and matching activities.

Focus Area Number Two

Research Staff Professional Development and Support

Objectives

Successful research can only be carried out by fully functioning teams of investigators and research staff. Grants administration and fiscal staff support the pre-award and post-award phases of the research funding process. Research scientists, research coordinators, and other research staff engage in active work on funded research projects. Occasionally, the latter also engage in the grant writing process. Each of these groups needs professional development and support to effectively carry out their responsibilities and to assure continuity across grant cycles.

Deliverables

- Identify and create professional development and peer networking opportunities
- Develop a system to coordinate research study staff when grants begin and end

IDENTIFY AND CREATE PROFESSIONAL DEVELOPMENT AND PEER NETWORKING OPPORTUNITIES

Overview

Staff professional development activities vary depending on the type of work in which research staff are engaged (grants administration or active research). The need for additional professional development opportunities was clearly articulated in the 2021 SPH Research Priorities Survey, but the specific types of professional development needed were not described. Therefore, the first step will be to conduct a needs assessment. This will be followed by a landscape analysis of existing professional development activities. New activities will be developed as needed and funding support will be provided for staff to attend existing activities. An active peer networking group will serve as the mechanism for disseminating and gathering information about staff development needs, as well as provide peer support and a venue for information-and idea-exchange.

Timeline and Milestones

Timeline	Milestones
December 2021	Initiate/restart peer networking group
January-June 2022	Conduct needs assessment to identify staff professional development needed
July 2022-June 2023	Conduct landscape analysis and develop plan
July 2023-January 2024	Roll-out development plan
February 2024-June 2025	Development plan implemented School-wide

Measurement and Evaluation

Data Needed	Data Collection, Frequency	Responsibility to Collect, Analyze	Reporting
Tracking number of staff attending events	Annual	SPH OD Team	
Conduct research staff satisfaction surveys	TBD	SPH OD Team	

Project Team

Area	Name
Budget	Liz Lancaster
	Lisa Manhart
Lead	Liz Lancaster
	Leesa Brown
Team	Research Council staff members
	Research staff in departments/programs
	Graduate student research assistant
Project Manager	Kimberly Hay

Potential Roadblocks and Risks

Potential roadblocks that could slow or hamper progress for identifying and supporting staff professional development activities include lack of time on the part of staff to participate in these activities, a greater balance of activities that must be developed *de novo* than existing activities that can be identified and leveraged, and limited resources to provide financial support for research staff to participate in professional development activities. The SPH OD will include questions about these potential roadblocks in the initial research staff satisfaction survey to monitor the extent to which they influence the ability to provide meaningful professional development to research staff.

DEVELOP A SYSTEM TO COORDINATE RESEARCH STUDY STAFF WHEN GRANTS BEGIN AND END

Overview

Funded research can be hampered by the timing of grant periods and there are occasionally funding gaps for trained research study staff. Similarly, when new projects are funded there is often a gap in the timing of the award and onboarding of staff to launch the work. Developing a system to coordinate needs and opportunities for research study staff will enhance the efficiency of research in the School, and contribute

to greater stability and job satisfaction by research study staff. A working group will be constituted to identify the full scope of issues, identify solutions, and develop a plan to coordinate research study staff.

Timeline and Milestones

Timeline	Milestones
January-June 2023	Develop working group
July 2023-January 2024	Identify issues, concerns, options
February-October 2024	Identify solutions
November 2024-February 2025	Develop plan of action
March-June 2025	Implement plan to coordinate research study staff

Measurement and Evaluation

Data Needed	Data Collection, Frequency	Responsibility to Collect, Analyze	Reporting
Track number of groups short of research FTE	Annual	SPH OD Team	
Track number of staff departing from SPH	Annual	SPH OD Team	
Track time taken to identify research staffing needs	Annual	SPH OD Team	
Track successful bridging of research staff	Annual	SPH OD Team and Department Administrators	

Project Team

Area	Name
Budget	Liz Lancaster
	Lisa Manhart
Lead	TBD
Team	Department administrators
	Program Investigators
	Research staff in departments/programs
	Graduate student research assistant
Project Manager	Kimberly Hay

Potential Roadblocks and Risks

Gaps in funding for trained research study staff is a systemic problem that has deep roots in the funding model. Developing a system to coordinate research study staff will depend on the working group having sufficient time released from other activities to creatively identify a way to do this. It may also depend on the availability of bridge funds when the end of some research projects do not align with the beginning of new projects. The SPH OD will provide some initial FTE for the working group leader and graduate student research assistant time to ensure adequate staffing of this effort.

Focus Area Number Three Investigator Support in Research

Objectives

Several areas of investigator support were identified in the 2021 SPH Research Priorities Survey. Specifically, four key areas of need rose to the top: (a) training grants were described as burdensome and faculty need additional administrative support; (b) a central place to house resources for the research process does not exist in the SPH; (c) many faculty cannot identify sufficient biostatistics support for their research; and, (d) the new emphasis from funding agencies on team science has resulted in an increasing need for help to foster collaboration. Responding to these needs will reduce significant burdens on investigators, make the research process more efficient, and ultimately support more successful research activities in the School. As research is a major contributor to the SPH reputation, and the majority of funding flowing into the SPH comes from research, achieving the deliverables below will strengthen the School overall and result in greater job satisfaction for faculty, staff, and students engaged in research.

Deliverables

- Increase support for training grant applications and renewals (joint with Training Opportunities in Research)
- Create a repository of resources for the grant lifecycle and other research-related needs
- Identify and support a model to provide biostatistical support to investigators
- Develop methods to foster cross-disciplinary collaboration

INCREASE SUPPORT FOR TRAINING GRANT APPLICATIONS AND RENEWALS

Overview

Training grants have several benefits for students and faculty. They attract and fund top students, enhancing our reputation and supporting the next generation of researchers. In turn, funded trainees contribute to faculty members' research programs. Challenges inherent in training grants include the lack of funding for faculty effort allowed on the grant by NIH; the size and scope of a new application (including collecting and presenting data on mentors and mentees for the required tables); the size and scope of reporting for renewal applications; and the amount of funding provided does not fully cover all costs (e.g., benefits, tuition, stipend gaps). To address this, we will identify mechanisms to facilitate completing the training grant tables, aiming to automate some of the data collection. We will also identify resources to provide enhanced pre-award support for new training grant applications.

Timeline	Milestones
January-June 2022	Conduct needs assessment about training grant tables
July-December 2022	Analyze assessment findings and develop next steps for data collection for training grant tables
January-April 2023	Conduct needs assessment about pre-award administration support needed to complete grants
May-November 2023	Analyze assessment findings and identify ways to meet support needs for pre-award administration support for new and renewal grants applications

Timeline and Milestones

Measurement and Evaluation

Data Needed	Data Collection, Frequency	Responsibility to Collect, Analyze	Reporting
Needs assessment: training grant tables	End of Y1	SPH OD Team Graduate student research assistant	
Needs assessment: pre- award support	End of Y1	Working Group	
Satisfaction survey for training grant PIs and administrators	End of Strategic planning cycle	SPH OD Team	
Track applications submitted	Annually	SPH OD Team	
Track applications awarded	Annually	SPH OD Team	

Project Team

Area	Name
Budget	Liz Lancaster
	Lisa Manhart
Lead	Lisa Manhart
	Liz Lancaster
Team	Leesa Brown
	Advancement representative
	Denis Brasfield
	Stephanie Farquhar
	TBD
Project Manager	Kimberly Hay

Potential Roadblocks and Risks

The primary challenge to successfully creating support for training grants is limited personnel and resources. It may be possible to leverage approximately ten percent FTE of an alumni relations coordinator to assist in gathering data for the training grant tables; however, this position does not currently exist. It also may be possible to develop an automated database from which to pull information for the training grant tables. Currently, however, there are no dedicated staff available to develop this. A support person may be able to coordinate new applications and populate training grant tables, but these responsibilities would not constitute a full-time position. Training grants are due/renew at the same times each year, making it challenging for a single person to support all training grants in the School. To address these potential roadblocks, the SPH OD Team will pilot several different approaches to providing support and evaluate the extent to which these roadblocks are surmountable.

CREATE A REPOSITORY FOR THE GRANT LIFECYCLE AND OTHER RESEARCH-RELATED NEEDS

Overview

Investigators spend considerable time writing grant applications. Many sections of these applications require text that is relatively consistent across research topics (e.g., facilities and resources of NIH grants, letters of support, etc.). Additionally, having access to examples of successful applications, responses to reviews, multiple PI plans, and other components of applications would facilitate drafting these sections. Furthermore, there is currently not an easily identifiable place to find research policies (e.g., matching funds requests, limited submission opportunity procedures, PI-eligibility, etc.). Housing all of these things in a web-based repository would create a central place for investigators to access needed resources and increase efficiency.

Timeline and Milestones

Timeline	Milestones
July 2022-June 2023	 Determine web location for repository
	 Assemble materials and add to repository
July 2023-June 2024	Launch repository with communications plan
July 2024-June 2025	Develop and implement plan to maintain
	repository, and ongoing improvements

Measurement and Evaluation

Data Needed	Data Collection, Frequency	Responsibility to Collect, Analyze	Reporting
Number page openings/site hits	Annually	Marketing/Communications Team	
Survey to determine usefulness	End of Strategic Planning Cycle	SPH OD Team	

Project Team

Area	Name
Budget	Liz Lancaster
	Lisa Manhart
Lead	TBD
	Lisa Manhart
Team	Graduate student research assistant
	Research Council members
	Communications staff, Office of the Dean
Project Manager	Kimberly Hay

Potential Roadblocks and Risks

Creating a web-based repository will depend on coordination with the OD Marketing/Communications team to create the web page. Maintenance would also need to be a new part of a staff person's other activities to ensure up-to-date information. Creation of the repository will require the willingness of faculty and research staff to share examples of their own material. Finally, it will depend on accurately identifying which types of resources will be most useful to investigators. The SPH Research Council will play a key role in addressing the latter.

IDENTIFY AND SUPPORT A MODEL TO PROVIDE BIOSTATISTICAL SUPPORT TO INVESTIGATORS Overview

Biostatistical input is essential to the conceptualization of new research, the effective writing of grant applications, and the appropriate analysis of the data once it is collected. Most biostatistics faculty members have their own research programs and have limited time to support other investigators. Access to masters-level biostatisticians to conduct analyses is also often limited. To identify the best method to provide enhanced biostatistical support to investigators in the SPH, we will first conduct a landscape analysis of the various models of biostatistics, will evaluate these models and identify a feasible model for the SPH. Options include reliance on external options for support (e.g., UW Institute for Translational Health Sciences), or developing an in-house resource by hiring PhD- and masters-level biostatisticians to support initial grant applications (transitioning their FTE to research projects when funded).

Timeline and Milestones

Timeline	Milestones
July 2024-June 2025	Create faculty working group, with
	representatives from each department
June 2025-TBD	Conduct landscape analysis of models that
	could provide biostatistical support to grants
TBD	Add biostatistics faculty to appropriate hiring
	plan to provide this resource

Measurement and Evaluation

Data Needed	Data Collection, Frequency	Responsibility to Collect, Analyze	Reporting
Track usage of Biostatistical support	Annual	TBD	
Survey to determine usefulness of system	End of Strategic Plan cycle	TBD	

Project Team

Area	Name
Budget	Liz Lancaster
	Lisa Manhart
Lead	Biostatistics faculty member
Team	Faculty member from each department
Project Manager	Kimberly Hay

Potential Roadblocks and Risks

A system to provide biostatistical support cannot be developed without leadership and input from faculty in the Department of Biostatistics. Therefore, accomplishment of this goal is highly dependent on agreement from the Department of Biostatistics. While information-gathering and designing the system can be accomplished with internal resources, instituting any system that involves hiring a PhD- and/or masters-level biostatistician will be dependent on attracting appropriate candidates for those positions and will need to involve human resources personnel.

DEVELOP METHODS TO FOSTER CROSS-DISCIPLINARY COLLABORATIONS

Overview

Researchers in the SPH have historically worked in silos. In our increasingly busy world, it is challenging to identify new collaborators and/or opportunities. Funding agencies continue to emphasize a teamscience approach over single discipline research, making collaboration even more important. Researchers in the SPH need venues and support to identify new collaborators and incentivize the development of new cross-disciplinary research projects.

Timeline and Milestones

Timeline	Milestones
July 2023-June 2024	Identify and develop plan of action, including workshops and SPH Grand Rounds
July 2024-June 2025	Initiate plan of action activities

Measurement and Evaluation

Data Needed	Data Collection, Frequency	Responsibility to Collect, Analyze	Reporting
Number workshops held	Annually	SPH OD Team	
Number new cross- disciplinary collaborations	Annually	SPH OD Team	

Project Team

Area	Name
Budget	Liz Lancaster
	Lisa Manhart
Lead	Member of SPH faculty
Team	Working group to be identified
Project Manager	Kimberly Hay

Potential Roadblocks and Risks

Fostering new collaborations is a challenging venture and methods to do this are less defined than other activities. These new collaborations depend somewhat on putting faculty and staff together, but successful research collaborations often depend on more esoteric things like "chemistry" between people and the ability to work well together. Therefore, structured activities created by the working group will need to be paired with creative ways to develop individual connections.

Focus Area Number Four

Training Opportunities in Research

Objectives

Training opportunities are critical to developing the next generation of successful researchers. Two main types of training opportunities were highlighted in the 2021 SPH Research Priorities Survey: training grants and F- and K-awards. While these are often targeted to students and post-doctoral fellows, they are also relevant for junior faculty, particularly in the case of NIH K-awards. Support for mid-career K-awards would also contribute to building a comprehensive support system for faculty at all levels.

Deliverables

- Increase support for training grant applications and renewals (joint with Investigator Support in Research)
- Enhance support for F- and K-award applications

INCREASE SUPPORT FOR TRAINING GRANT APPLICATIONS AND RENEWALS

Overview

NIH training grants were identified as a priority within this focus area, as well as in the previous section. Details about the plans for providing enhanced support for training grants are outlined in Investigator Support in Research and, therefore, not repeated here.

See above page numbers 10-11.

ENHANCE SUPPORT FOR NIH F- AND K-AWARD APPLICATIONS

Overview

NIH F31 pre-doctoral fellowship awards and NIH F32 post-doctoral fellowship awards are designed to support training for individuals planning to engage in research careers. Early career K-awards are designed to facilitate the transition from trainee to independent investigator, and mid-career K-awards are designed to support faculty mentors. Like many NIH grant mechanisms, there are specific expectations for each of these types of awards, and guidance and workshops to convey this information can create a greater feeling of community and provide information to enhance the likelihood of success. The SPH will begin with a landscape analysis of existing mechanisms for support for gaps that are identified in the landscape analysis.

Timeline	Milestones
July 2022-December 2022	Conduct landscape analysis to identify what support opportunities currently exist
January-June 2023	Expand workshops for existing F-awards
July 2023-June 2024	Develop K-award workshops
July 2024-June 2025	Conduct workshopsImplement process to provide support School-wide

Timeline and Milestones

Measurement and Evaluation

Data Needed	Data Collection, Frequency	Responsibility to Collect, Analyze	Reporting
Number workshops	Annual	SPH OD Team	
Number applications	Annual	SPH OD Team	
Number successful	Annual	SPH OD Team	

Project Team

Area	Name
Budget	Liz Lancaster
	Lisa Manhart
Lead	Member of faculty to be identified
Team	Graduate student research assistant
Project Manager	Kimberly Hay

Potential Roadblocks and Risks

Development of systems to support F- and K-award applications will depend on faculty time and willingness to support these efforts. To some extent, it will also depend on having effective ways for students, post-doctoral fellows, and junior faculty to identify and link themselves with mentors. If faculty time is an issue, the SPH OD will work with department chairs to identify ways to incentivize mentoring trainees for F- and K-awards. The SPH will also leverage lessons learned from the establishment of the system to match eligible diversity supplement candidates with interested mentors.

Appendix A. 2021 Research Survey Results

Executive Summary and Aggregate Results⁴

Rationale. As outlined in the School of Public Health (SPH) Strategic Plan (2020-2025), the Research Council was charged with developing a Priority Research Plan to guide activities to strengthen and support research in the SPH. To inform this plan, the Research Council designed and disseminated a survey to seek input from SPH faculty, staff, and graduate students.

Methods: Survey respondents were asked to rate 19 priorities/activities in terms of importance (Appendix A). These priorities/activities were derived from discussions with department chairs and the Faculty Council, and at faculty and staff meetings in each department. The survey, which was active from April 29-May 13, 2021, asked respondents to rank each priority/activity as "High Priority," "Medium Priority," "Low Priority," "Not a Priority," or "Already in Place." There was a space for additional text comments after each priority/activity, as well as a separate field for general comments at the end. The survey also included two questions regarding likelihood of participating in these activities as a mentee, and as a mentor.

A numeric value from 0-3 was assigned to the Likert scale options ("High Priority"=3; "Medium Priority"=2; "Low Priority"=1; "Not a Priority"=0). Mean scores for each priority/activity were calculated, with the highest score representing the highest rank. The initial ordering of priorities/activities was established on the basis of mean scores calculated to three decimal points. The final 'relative rank' was determined by mean scores rounded to one decimal point. The "Already in Place" option was included as a possible explanation for activities that ranked low in priority, but was not included in the calculation of the means. Top priorities were defined as a mean score ≥2.0 (medium or high priority) in the "SPH Overall" results.

Overall rankings calculated across all SPH members ("SPH Overall") constituted the primary analysis. Responses were also stratified by respondent position (faculty, staff, student), faculty rank among faculty members, degree program among students, and respondent department. Likelihood of participating in these activities as a mentee or a mentor were summarized in aggregate and by department. Departmentspecific rankings were also calculated. A summary of representative comments was paired with the survey rankings and the full text of all comments is included as an appendix.

Results: Overall, a total of 433 persons (22.6%) responded and 293 completed all questions. Mean scores for each of the 19 priorities/activities across all SPH respondents (SPH Overall) were relatively consistent with results stratified by position (faculty, staff, graduate students). In most cases, the same items were ranked in the top four tiers of priority, although the order of priority often differed. Due to numerous ties in mean values, many more than four priorities/activities are listed in the top four tiers. Comments indicated that some activities may be more appropriately implemented at the department-level, while others may be more appropriate at the school-level.

When all SPH respondents were considered together, the ranking of priorities/activities yielded a single item as the first priority, a two-way tie for second priority, an eight-way tie for third priority, and a two-way tie for fourth priority (Table). The highest priority overall was the development of a toolkit to integrate antiracist principles into research. Second in priority with roughly equal mean scores were: (a) the development of a service to coordinate research study staff FTE when grants end, and (b) seed money to

⁴ Excerpts from the Results Report of the 2021 Research Priorities Survey.

support new research initiatives. Notably, although these activities/priorities ranked in the second tier overall, faculty ranked other priorities/activities more highly.

In third tier, eight items were ranked approximately the same. These were: (a) support of student and post-doc development of F- and K-awards; (b) support for diversity supplements; (c) support for new training grants; (d) development of a web-based repository of materials/resources for grant writing and research management; (e) assistance in fostering new collaborations; (f) biostatistical support for grant writing and analyses; (g) identifying and supporting topical areas of research that the school should focus on; and (h) increased support for existing training grants. Although identification of topical areas of research to invest in was included in this third tier, there were an equal number of positive and cautionary comments. Support for training grants was included in the third tier largely due to a divergence in ranking by faculty, staff, and graduate students (highly ranked by faculty and staff, low ranking by students).

Two activities were ranked fourth in importance overall: (a) cross-departmental professional development for staff, and (b) a school-wide research/practice project. While neither of these were high priority for faculty, professional development for staff was ranked very highly by staff respondents. Notably, throughout the comments, staff voiced a clear need for support.

Six items ranked fairly low in importance and, with few exceptions, this low ranking was consistent across groups. The activities/priorities of least importance were: (a) long duration writing workshops for specific types of grant applications; (b) seminars, workshops, and panel discussions; (c) more explicit recognition of research excellence in the school; (d) physical infrastructure for research; (e) repository of data and specimens for secondary analyses; and (f) a how-to guide for establishing a research niche.

When stratified by faculty rank, priorities were relatively similar for assistant and associate professors and differed somewhat from responses by full professors. Student priorities in general were similar across degree program, with a few notable exceptions. Priorities varied somewhat between departments.

Willingness to participate in research support activities was high with 68% of survey respondents indicating they were "Extremely Likely" or "Somewhat Likely" to participate in peer mentoring, peer reviewing, and other professional development activities as a mentee. Eighty-five percent indicated they were either extremely or somewhat likely to participate in activities as a mentor.

Table: Aggregate Results of the 2021 Research Priorities Survey

(N=433 respondents; Table 3 in the Survey Report)

Legend: Top rank 2nd rank 3rd rank 4th rank

	Relative Rank	Rounded Mean	Mean	% said already in place
Toolkit to help integrate anti-racism principles into research conducted in the SPH	1	2.6	2.584	3.4%
Service to coordinate research study staff FTE when grants end (e.g., identify possible shared positions to maintain trained research staff within the SPH)	2-3	2.3	2.336	1.4%
Additional seed money or pilot funds to support new directions	2-3	2.3	2.261	1.4%
Student writing workshops to support successful F- and K-award applications	4-11	2.2	2.241	2.7%
Support for developing new training grants	4-11	2.2	2.238	0.7%
Support for writing NIH Diversity Supplement applications, such as workshops on the how-tos and a matching system to link faculty and students	4-11	2.2	2.219	6.1%
Web-based repository of materials to aid in grant writing and grants management (e.g., exemplar grants, successful resubmissions, progress reports, boilerplate language, etc.)	4-11	2.2	2.201	3.0%
Assistance in fostering new collaborations through activities such as cross-department working groups or events on interdisciplinary topics to stimulate new collaborations	4-11	2.2	2.195	2.7%
Biostatistical support for grant writing and funded research	4-11	2.2	2.183	8.4%
Identification of topical areas of research to build and investment of resources in these areas	4-11	2.2	2.182	3.3%
Increased support for existing training grants, such as shared/increased administrative support or coverage of PI-ship for training grants in faculty compensation plan	4-11	2.2	2.160	1.7%
Cross-department professional development for research staff (e.g., regular meetings for research admin, skills building, etc.)	12-13	2.1	2.062	2.0%
School-wide research/practice project working with a community or communities in WA	12-13	2.1	2.051	1.0%
Writing workshops lasting >=1 month that take a cohort of people through writing large grant applications over time (e.g., R01, P01, U01, etc.)	14	2.0	1.971	3.0%

	Relative Rank	Rounded Mean	Mean	% said already in place
One time (potentially recurring) seminars, workshops and panel discussions on topics such as finding funding opportunities, transitioning from smaller to larger grants, project management skills, etc.	15-16	1.9	1.930	5.4%
More explicit recognition of the excellence and impact of research done in the school (e.g., press releases)	15-16	1.9	1.873	14.4%
Physical infrastructure for research (e.g., laboratories, computing)	17-18	1.8	1.789	11.1%
Repository of data and specimens available for additional analyses	17-18	1.8	1.779	5.4%
How to guide to identify your research niche area (where you are the expert) and partners/collaborators	19	1.6	1.622	0.3%

Appendix B. Full Scope of Milestones, in date order

Academic Year: 2020-2021

Timeline	Goal	Objective	Milestones	Status (as of January 2022)
July 2020-March 2021	Research Roadmap	Conceptualization	Develop and implement survey	Completed
April-August 2021	Research Roadmap	Priority-setting	Analysis of survey results	Completed
September-December 2021	Research Roadmap	Develop roadmap	Finalized document	Completed
Ongoing, Quarterly	Anti-Racism in Research	Diversity Supplements	Update list of eligible grants	Completed
Ongoing, Quarterly	Anti-Racism in Research	Diversity Supplements	Maintain web site	Completed
Ongoing, Annual	Anti-Racism in Research	Diversity Supplements	Conduct annual event for faculty and students	Completed

Academic Year: 2021-2022

Timeline	Goal	Objective	Milestones	Status (as of January 2022)
November- December 2021	Anti-Racism in Research	Develop Toolkit	Form working group	In progress
November 2021- October 2022	Anti-Racism in Research	Diversity Supplements	Develop matching system	
December 2021	Staff Development	Professional Development	Initiate/re-start peer networking group	Completed
January-June 2022	Anti-Racism in Research	Develop Toolkit	Create action plan to complete toolkit	
January-June 2022	Investigator Support; Training Opportunities	Support for Training Grants	Conduct needs assessment about training grant tables	
January-June 2022	Staff Development	Professional Development	Conduct needs assessment to identify staff professional development needed	
Ongoing, Quarterly	Anti-Racism in Research	Diversity Supplements	Update list of eligible grants	In progress
Ongoing, Quarterly	Anti-Racism in Research	Diversity Supplements	Maintain website	In progress
Ongoing, Annual	Anti-Racism in Research	Diversity Supplements	Conduct annual event for faculty and students	

Timeline	Goal	Objective	Milestones
July-December 2022	Investigator Support; Training Opportunities	Support for Training Grants	Analyze assessment findings and develop next steps for training grant tables
July-December 2022	Training Opportunities	Support for F- and K- Awards	Conduct landscape analysis to identify what support opportunities currently exist
July 2022-June 2023	Anti-Racism in Research	Develop Toolkit	Complete creation of toolkit
July 2022-June 2023	Investigator Support	Repository of Resources	Determine web location of repositoryAssemble materials and add to repository
July 2022-June 2023	Staff Development	Professional Development	Conduct landscape analysis and develop plan
January-April 2023	Investigator Support; Training Opportunities	Support for Training Grants	Conduct needs assessment about pre-award administration support needed to complete grants
January-June 2023	Staff Development	Coordinate Research Study Staff	Develop working group
January-June 2023	Training Opportunities	Support for F- and K- Awards	Expand workshops for existing F-awards
November 2022-October 2023	Anti-Racism in Research	Diversity Supplements	Expand matching of diversity candidates with faculty mentors to other UW units with eligible grants
Ongoing, Quarterly	Anti-Racism in Research	Diversity Supplements	Update list of eligible grants
Ongoing, Quarterly	Anti-Racism in Research	Diversity Supplements	Maintain web site
Ongoing, Annual	Anti-Racism in Research	Diversity Supplements	Conduct annual event for faculty and students

Timeline	Goal	Objective	Milestones
May 2023- November 2024	Investigator Support; Training Opportunities	Training Grants	Analyze assessment findings and identify ways to meet support needs for pre-award administration in completing grants
July 2023-June 2024	Anti-Racism in Research	Develop Toolkit	Define roll-out plan for toolkitDefine processes for using the toolkit
July 2023-June 2024	Investigator Support	Foster Cross- Disciplinary Collaboration	Identify and develop plan of action, including workshops and SPH Grand Rounds
July 2023-June 2024	Investigator Support	Repository of Resources	Launch repository with communications plan
July 2023-June 2024	Training Opportunities	Support for F- and K- Awards	Develop K-award workshops
July 2023- January 2024	Staff Development	Professional Development	Roll-out development plan
July 2023- January 2024	Staff Development	Coordinate Research Study Staff	Identify issues, concerns, options
February- October 2024	Staff Development	Coordinate Research Study Staff	Identify solutions
Ongoing, Quarterly	Anti-Racism in Research	Diversity Supplements	Update list of eligible grants
Ongoing, Quarterly	Anti-Racism in Research	Diversity Supplements	Maintain web site
Ongoing, Annual	Anti-Racism in Research	Diversity Supplements	Conduct annual event for faculty and students

Timeline	Goal	Objective	Milestones
February 2024- June 2025	Staff Development	Professional Development	Development plan implemented School-wide
July 2024-June 2025	Anti-Racism in Research	Develop Toolkit	Implement plan for using new toolkit with current and new employees
July 2024-June 2025	Investigator Support	Biostatistical Support	Create faculty working group, with representatives from each department
July 2024-June 2025	Investigator Support	Foster Cross- Disciplinary Collaboration	Initiate plan of action activities
July 2024-June 2025	Investigator Support	Repository of Resources	Develop and implement plan to maintain repository, and ongoing improvements
July 2024-June 2025	Training Opportunities	Support for F- and K- Awards	Conduct workshopsImplement process to provide support School-wide
November 2024- February 2025	Staff Development	Coordinate Research Study Staff	Develop plan of action
March-June 2025	Staff Development	Coordinate Research Study Staff	Implement plan to coordinate research study staff
Ongoing, Quarterly	Anti-Racism in Research	Diversity Supplements	Update list of eligible grants
Ongoing, Quarterly	Anti-Racism in Research	Diversity Supplements	Maintain web site
Ongoing, Annual	Anti-Racism in Research	Diversity Supplements	Conduct annual event for faculty and students

Academic Year: 2024-2025

Timeline	Goal	Objective	Milestones
June 2025-TBD	Investigator Support	Biostatistical Support	Conduct landscape analysis of models that could provide biostatistical support to grants
TBD	Investigator Support	Biostatistical Support	Add biostatistics faculty to appropriate hiring plan to provide this resource
Ongoing,	Anti-Racism in	Diversity	Update list of eligible grants
Quarterly	Research	Supplements	
Ongoing,	Anti-Racism in	Diversity	Maintain web site
Quarterly	Research	Supplements	
Ongoing, Annual	Anti-Racism in Research	Diversity Supplements	Conduct annual event for faculty and students

Academic Year: 2025-2026

Appendix C. Research Roadmap Timeline Detail

Figure 2. Detail of Research Roadmap Timeline, 2020-2025

Diversity Supplement Workshops and Matching Assistance (ongoing)									
Finalize Roadmap, M&E Plan Working Group Anti-Racism Toolki		Development Anti-Racism Toolkit	Roll-out Implementa Anti-Racism Toolkit Anti-Racism						
	Needs Assessment Staff Professional Development Activities;	Development Staff Professional Development Activities	Roll-out Staff Professional Development Activities	aff Professional Implementation					
	Needs Assessment Training Grant Support	Development Training Grant Support							
		Expand Existing F- Award Workshops	Development K- Award Workshops	Implementation F- and K- Award Workshops Maintain Resource Repository					
Focus Area Key		Create Resource Repository	Launch Resource Repository						
Anti-Racism in Research Research Staff Professional Development and Support			Working Group Coordinate Research Study Staff	Establish System Coordinate Research Study Staff					
Investigator Support in Research Training Opportunities in Research			Develop Activities Fostering New Collaborations	Conduct Activities Fostering New Collaborations					
				Landscape Analysis Biostat Support	Implement Biostat Support				
					Plan Next Roadmap				