Dear Dean Karpus,

Thank you for your letter dated June 20, 2017, reporting on the 10-year review of the Graduate Program in Population Health by the Graduate Faculty Executive Committee. The review noted the many strengths of our program, but also expressed some concerns. Below we provide itemized responses to these concerns:

- …..the GFEC requests that the program develop a plan to provide students with an annual written assessment and provide it to the Graduate School by November 1, 2017, for implementation in the upcoming academic year.

**Plan for providing Population Health students with annual written assessments:**

At present advisors meet every semester with students in the pre-thesis or pre-dissertation stage to discuss course work, and plans for qualifying and preliminary exams. A signed form is returned to the Graduate Coordinator. For dissertators, the dissertation committee meets every year and provides feed-back to students. In light of the above comments from GFEC, we will tighten and formalize these processes and institute a requirement for annual written assessment of students as follows:

1. Starting in Spring of 2018, a Student Review Committee consisting of 4 faculty members and the Graduate Program Coordinator will be appointed to review coursework, grades, funding and research progress for all students. The committee will include the Director of the Graduate Program, the Chair of the Admissions Committee, the Chair of the PhD Qualifier Committee and a rotating member who is a faculty member advising PhD students.

2. All students will be required to prepare Individual Development Plans (IDPs) and submit to the Graduate Program Coordinator as well as to their advisors. The IDP will include information on financial support and a summary of student research progress and activities (such as publications and abstract presentations at meetings). The Graduate Program Coordinator will supplement the IDPs with grade rosters and information on preparing for and passing exams, and make the information available to the Student Review Committee.

3. The Student Review Committee will provide a brief report to each graduate student advisor, summarizing how the student compares to other students in terms of (a) Progress, depth and breadth of course work, with special consideration of whether the student is on her/his way to fulfill degree requirements and career goals. (b) An assessment of whether the student is well prepared for the next step exams, such as qualifying exam or Preliminary Examination. (c) Comments on funding and potential career opportunities. A brief form will be developed to standardize this summary, which will address student shortcomings as well as recognize achievements and point out opportunities for career growth.
4. Advisors will combine the review committee's summary with the IDP and their own observations, meet with the student and provide a written review together with the plan for course work and/or research for the following semester and year. For dissertators, the review will also include comments from the annual meeting of the student's dissertation committee.

- The GFEC also concurs with the review committee's recommendation that the program should work with the School of Medicine and Public Health to create a sustainable plan for replacing faculty members that will maintain a critical mass of educators and mentors for the graduate program.

The Dean's office is in final negotiations with the candidate selected for Chair of Population Sciences. We are currently awaiting the results of these negotiations.

- Data from the Graduate School identified the Ph.D. program's low rate of completion compared to its peer institutions, with roughly 1/3 of students leaving after receiving a Master's degree. The committee believes that an investigation into the reasons for this attrition would be beneficial. Even though reasons or leaving can be individual, systemic issues may be discovered. Therefore, we ask that the program investigate why students are leaving the Ph.D. program and report its findings to the GFEC by November 1, 2017.

Analysis of completion rate and plan of action:

UW-Madison Academic Planning and Institutional Research reports a 62.5% 10-year completion rate for PhD students in Population Health versus 78.4% at peer institutions in the AAU. However, if we compare our program with some closely related programs at UW-Madison, our 62.5% PhD completion is similar to or higher than that in several related programs, while the 78.4% at AAU programs in Population Health is out of line with AAU data for other programs. (see below table).

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<th>Population Health</th>
<th>Sociology</th>
<th>Economics</th>
<th>Clinical Investigation</th>
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<td>UW-Madison</td>
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<td>62.9%</td>
<td>60%</td>
<td>40%</td>
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<tr>
<td>AAU peers</td>
<td>78.4%</td>
<td>66.5%</td>
<td>53.4%</td>
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An inquiry to the UW-Madison Academic Planning and Institutional Research regarding definition of the AAU peer group for Population Health brought the following response:

This match was done at the four-digit CIP code level, as there was only one other institution that submitted directly to the 51.2208 CIP, and we require three or more institutions to make a comparison. The 51.22 four-digit CIP is considered “Public Health”, broadly, and you can browse the CIP Codes that are included in that here: https://nces.ed.gov/ipeds/cipcode/browse.aspx?y=55

Browsing the link shows that our code 51.2208 is defined as “Community Health and Preventive Medicine” and that our peers range across 11 codes from “Public Health Education and Promotion” to “Health Services Administration”, “Health/Medical Physics”, and “Occupational Health and Industrial Hygiene”. It, therefore, appears that the comparisons in the table above may be more relevant.

Nonetheless, we take the issue of drop-out very seriously. Our actions have included the following:

1. We reviewed all the PhD students who dropped out after matriculation 2011-2017 both individually and statistically.
   (a) On the individual level, we found a mixture of circumstances leading to drop-out, such as failing the qualifying exam, childbirth and moves to be closer to family. One circumstance that stood out was the loss of some residents and medical fellows. We, for example, have policies in place to automatically
admit MD/PhD students and certain residents and fellows already accepted in clinical programs. While many of these students excel in course work and research for the MS or PhD, a few are not adequately prepared, especially for the quantitative aspects of our program. Others are recruited away for faculty positions at other Universities before they can finish their PhDs.

(b) On the statistical level, we did not find any differences in admission characteristics between those who dropped out from the PhD and those who completed. Perhaps this is not surprising, as our admissions criteria have been quite strict and well defined in recent years.

(c) Our analysis did find that students who dropped out tended to earn B’s in several core courses prior to drop-out. We therefore expect that the student review process outlined in 1 above may have a positive impact on PhD completion by more systematically identifying students who are not on a satisfactory trajectory and require more intense mentoring.

(d) We reviewed several reports of research on PhD drop-out. Some factors such as gender (women have higher non-completion, and most PH students are women) and being a foreign student (higher completion) are difficult to address. However, it has been consistently found that student confidence in their abilities and strong mentoring increase completion rate. Again, our steps in student review and feed-back outlined above have the potential to reduce drop-out.

2. We considered the fact that Population Health does not exist as an undergraduate major. Hence, we need to ensure that applicants to the program understand quantitative and other expectations.

Finally, we would like to note that we also have 3-4 MS students every year who switch from the MS to the PhD either in Epidemiology or in Population Health. Also, the MS in Population Health is a very employable and valued terminal degree.

- The GFEC is also concerned with limited first-year funding for students in the program. While the current organizational structure places some constraints on the ability to obtain training grants which can be used to fund the first year of a student’s program, GFEC recommends that the program develop alternative approaches to provide first-year funding to the students.

We are very interested in obtaining training grants that can support our first year students. Recently an application to the Agency for Health Care Research and Quality population health training grant with John Mullahy as PI was submitted, and we are alert to other similar opportunities.

Starting in the next admissions cycle, we will make a point of reviewing funding opportunities earlier in the admission cycle, so that offers can be made as soon as students are admitted. As almost all admitted students end up receiving support, this is a matter of timing and of a more systematic mapping of what types of student are sought by funded PH Program faculty, institutes and research programs.

- Finally, given that the department now offers an M.S./Ph.D. in Epidemiology, the committee questions the need for the named option in “Epidemiology” in the M.S./Ph.D. in Population Health. The GFEC would like the department to explore alternative paths for training students in epidemiology, such as a doctoral minor or series of courses that would serve students equally well with less administrative burden.

We welcome future discussion with Graduate School of alternative approaches and how administrative burden can be reduced. As of now, the Epidemiology option has served our students very well. We have especially heard positive feedback during employment seeking. We would also like to point out that the epidemiology PhD option has requirements beyond the typical minor, such as 4 required courses, having an epidemiology faculty advisor
and having an epidemiology related research topic. On the other hand, the option requires less undergraduate biology and calculus preparation than the Epidemiology degree. We therefore feel that the epidemiology option in the Population Health graduate program serves a special purpose.

We will be happy to provide further information as needed regarding the above issues.

Sincerely,

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Emily Reynolds, Graduate School