Approved by the Regents May 15, 2014

PROMOTION RECOMMENDATION

The University of Michigan School of Public Health Department of Epidemiology

Joseph N. Eisenberg, associate professor of epidemiology, with tenure, Department of Epidemiology, School of Public Health, is recommended for promotion to professor of epidemiology, with tenure, Department of Epidemiology, School of Public Health.

Academic Degrees:

Ph.D.	1992	University of California, Berkeley/San Francisco
M.P.H.	1991	University of California, Berkeley
M.S.	1986	University of California, Berkeley/San Francisco
B.S.	1982	University of California, Berkeley

Professional Record:

2008 – Present	Associate Professor of Epidemiology, University of Michigan, School of
	Public Health, Ann Arbor, MI
2008 - 2011	Associate Professor of Environmental Health Sciences (dry appointment),
	University of Michigan, School of Public Health, Ann Arbor, MI
2006 - 2008	Assistant Professor of Epidemiology, University of Michigan, School of
	Public Health, Ann Arbor, MI
2003 - 2005	Adjunct Associate Professor/Associate Research Scientist, School of Public
	Health, U.C. Berkeley (Divisions of Environmental Health Sciences and
	Epidemiology)
1998 - 2003	Adjunct Assistant Professor/Assistant Research Scientist, School of Public
	Health, U.C. Berkeley (Divisions of Environmental Health Sciences and
	Epidemiology

Summary of Evaluation:

<u>Teaching</u>: Professor Eisenberg has made important contributions to teaching. For several years he has been the lead instructor in major service courses both in the department and the school. These courses are especially challenging because of their size and because of the extreme heterogeneity in student backgrounds. He has also taught several more specialized courses in infectious disease epidemiology, global health, and a novel course on systems modeling with excellent reviews. He consistently receives high student evaluation scores. In addition to classroom teaching, Professor Eisenberg has been a dedicated and sought-after mentor, having mentored and placed a large number of Masters and Ph.D. students. He regularly publishes with his students and is well recognized for his excellent mentoring abilities.

<u>Research</u>: Professor Eisenberg has been an international leader in the study of the epidemiology of infectious diseases. He has made major contributions in two key areas: (1) understanding the role of a range of environmental factors in disease transmission both domestically and internationally; and (2) bringing a systems perspective, and the tools of systems modeling, to the

study of how environments shape the distribution of infectious diseases. An innovative aspect of his work has been his ability to integrate systems thinking, environmental epidemiology, and infectious disease epidemiology in ways that provide new insights not only into disease etiology but also into novel interventions and policies to prevent infectious diseases. His work has been characterized by an interdisciplinary approach that integrates anthropology, sociology, environmental engineering, and infectious disease epidemiology. His scholarly productivity since his promotion to associate professor has been excellent with 40 peer-reviewed articles and over \$5 million in grant funding.

Recent and Significant Publications:

- Eisenberg JN, Trostle J, Sorensen RJ, Shields KF. "Towards a systems approach to enteric pathogen transmission: From individual independence to community interdependence." *Annual Review of Public Health*, 2012 Apr; 33:239-57.
- Enger KS, Nelson KL, Rose JB, Eisenberg JN. "The joint effects of efficacy and compliance: A study of household water treatment effectiveness against childhood diarrhea." *Water Research*, 2013 Mar 1; 47(3):1181-90.
- Eisenberg JN, Goldstick J, Cevallos W, Trueba G, Levy K, Scott J, Percha B, Segovia R, Ponce K, Hubbard A, Marrs C, Foxman B, Smith DL, Trostle J. "In-roads to the spread of antibiotic resistance: Regional patterns of microbial transmission in northern coastal Ecuador." *Journal of Royal Society, Interface/the Royal Society*, 2012 May 7; 9(70):1029-39.
- Spicknall IH, Foxman B, Marrs CF, Eisenberg JN. "A modeling framework for the evolution and spread of antibiotic resistance: Literature review and model categorization." *American Journal of Epidemiology*, 2013 Aug 15; 178(4):508-20.
- Zelner JL, Trostle J, Goldstick JE, Cevallos W, House JS, Eisenberg JN. "Social connectedness and disease transmission: Social organization, cohesion, village context, and infection risk in rural Ecuador." *American Journal of Public Health*, 2012 Dec; 102(12):2233-9.

Service: Professor Eisenberg has served on numerous departmental committees, including serving as chair or co-chair of the doctoral committee, the admissions committee, and the infectious disease search committee. He has also served on the school's global health committee. In addition, he has provided external service as a chartered member of NIH study sections and as a reviewer for numerous journals in his area of expertise. Professor Eisenberg has also served as a member of various national and international working groups and panels for agencies such as the Environmental Protection Agency, the Fogarty Institute, and the World Health Organization.

External Reviewers:

Reviewer (A): "...my overall judgment of the impact of Dr. Eisenberg's writings and work is very high. His voice is both heard and respected widely."

Reviewer (B): "Dr. Eisenberg's career has been solid [over the past two decades] but seems to have taken off over the past half decade, to the point where he is now entering the ranks of a world leader in the field....I have little doubt that Dr. Eisenberg would be promoted to full professor at my own institution, based on this research accomplishments and recent publication record."

Reviewer (C): "What Dr. Eisenberg is proposing is, in essence, a paradigm shift within the diarrheal disease field, away from simple risk assessment and towards multi-causal models that incorporate social interactions. This focus is very much on the cutting edge of epidemiology."

Reviewer (D): "Dr. Eisenberg's research also has major implications for interventions strategies and WASH (water sanitation and hygiene) in general. Overall, the scholarly impact of his writing, both qualitatively and quantitatively has been significant both nationally and internationally."

Reviewer (E): "...Professor Eisenberg has been able to make particularly noteworthy contributions to our understanding of transmission processes and the complex interplay of host, agent, and ecologic environment. This work is not only highly original and methodologically rigorous, but it often has important policy implications for regulatory decision-making bodies such as the U.S. EPA."

Reviewer (F): "Overall, my investigation revealed both breadth and depth in the full range of programs and professional activities and responsibilities that Dr. Eisenberg handles. Generally speaking, Dr. Eisenberg is highly productive with a wide range of publications, stemming from his own R01 and NSF/EID supported research. I would call his choice of research systems highly challenging and highly rewarding."

Summary of Recommendation

Professor Eisenberg has demonstrated a remarkable capacity to integrate his teaching and mentoring with his research, and has provided important contributions to the department through his dedication and research collaborations. Based on his outstanding research productivity, strong international reputation, and substantial teaching record, I am pleased to recommend Joseph N. Eisenberg for promotion to professor of epidemiology, with tenure, Department of Epidemiology, School of Public Health.

Martin A. Philbert, Ph.D.

Dean, School of Public Health

May 2014