

**PHS 810-644: Interdisciplinary Perspectives on Global Health and Disease:
South Asia**

New Section Proposal

PHS 644-020

2 credits

Spring Semester 2011

2 hours per week: Weekly Evening Seminar

Dates to be determined.

Prerequisites:

This section of PHS 644 is intended for graduate and health professional students and those participating in the Certificate in Global Health. Upper-level undergraduate students may also participate on a space-available basis with consent of instructor. Thus, the pre-requisite will be: Must be a graduate or health professional student; or by permission of instructor. Preference will be given to students who plan to participate in a **PHS 645** Global Health Field Study in India, or other credit-based field experience in South Asia.

Faculty:

The Center for Global Health Steering Committee and Staff are responsible for coordination of PHS 644 and its sections (please refer to that course syllabus for list of course faculty. This section is being led Lalita du Perron and Ann Behrmann, who have expertise specific to India and will lead the PHS 645 field study. These instructors have worked with the Center for Global Health Steering Committee and Education Task force to develop the course.

Section Leaders:

Lalita du Perron, PhD. Associate Director, Center for South Asia, and
Ann Behrmann, MD, Asst. Clinical Professor of Pediatrics, Center for Global Health Senior
Advisor

Guest Lecturers:

Adam Auerbach, MA, Department of Political Science.

Lori DiPrete Brown, MSPH. Faculty Associate, Center for Global Health; MPH Program
Faculty; Director, Certificate in Global Health.

Suresh Chandra MD, Professor, Dept of Ophthalmology, Division of International
Ophthalmology, UWSMPH.

F. Joshua Dein, DVM, MS Adjunct Associate Professor of Special Species Health, UW School
of Veterinary Medicine/ Nelson Institute for Environmental Studies

Maureen Durkin, PhD, MPH, DrPH, Professor, Pediatrics and Population Health Sciences,
U WI SMPH

Joe Elder, PhD. Professor, Sociology, College of Letters and Science.

Marc Galanter, PhD. Professor Emeritus, UW-Madison Law School.

Christine Garlough, PhD, Gender and Women's Studies Program.

Matt Karwowski MD, UWSMPH Research Fellow, MPH candidate

Sarah Khan, MS, MPH, PhD, U WI Dept of Family Medicine

Erika Sevetson, Senior Academic Librarian, Ebling Library, U WI SMPH

Ken Shapiro, PhD, Professor and Chairperson, Agricultural and Applied
Economics (tentative)

David Van Sickle, PhD, UWI SMPH and Reciprocal Sciences

Course Description:

This 2-credit semester course section provides country-specific interdisciplinary perspectives on global health and disease. While the course is open to all students interested in country-specific study, it is designed to prepare students for **PHS 645** Global Health Field Study and other credit-bearing field experiences related to global health.

The course will address topics related to maternal and child health, nutrition, infectious disease, chronic illness, environmental health, and the human-animal link in health and disease. The interdisciplinary approach brings in perspectives from medicine, veterinary medicine, nursing, pharmacy, public health and the social sciences. Each section will provide a historical and cultural overview and will include consideration of cultural competence and cultural humility. Each section will also engage students in learning about country-specific health data and descriptive information about the health system. Students will work individually and in small, interdisciplinary groups to explore health topics relevant to the site we will study (and which some students will visit).

Students who participate in the summer internship will be oriented to learn from local health care providers and community members about community strengths and needs, so that they are prepared to carry out their field study within a framework of mutual learning, respect for local knowledge, and professional ethics.

Course Objectives:

By the end of the course student will be able to:

- Explain the global burden of diseases, the health transition, and the triple burden of disease as it relates to India.
- Describe how country-specific environmental, cultural, economic, and social factors influence health in India.

- Review the structure of the Indian health system in the country studied, the role of primary health care, public health, and non-governmental organizations in the health sector.
- Describe diseases commonly found in India and explain the etiology, epidemiology, clinical presentation in humans and animals, public health implications, and prevention and treatment strategies.
- Explore public health approaches for maintaining health and preventing and treating illness in community settings in India, including surveillance, diagnostic activities, and interventions. This should include basic health needs such as maternal and child health and nutrition, as well as transnational health challenges such as environmental effects on health. Appreciate how traditional healing practices are used to mitigate symptoms of chronic disease.
- Utilize principles and strategies for interdisciplinary team work (communication, negotiation, respect for group dynamics, and conflict resolution).
- Explore concepts related to cultural competence and cultural humility, as well participatory community approaches to health.
- Examine ethical issues related to international health and explore corporate and governmental responsibility.

Teaching Methods:

Seminars will include didactic presentations and discussions led by UW course leaders, content experts and visiting faculty. Speakers will be invited from the College of Agriculture and Life Sciences, the UW Law School, the Nelson Institute of Environmental Studies, as well as from the School of Medicine and Public Health, Pharmacy and Veterinary Medicine. Students will participate in classroom discussions, group work, and web-based discussions. Each student will deliver a presentation.

Grading and Assignments:

Course grades will be based on attendance, participation and discussion as well as classroom assignments. The following evaluation guidelines will be used for the course:

20% -- Attendance at lectures, completion of the assigned readings and participation in class discussion.

20% -- Assignment related to profiling the health status and health system in the country studied (may use “geo-journal” or similar group assignment that engages students in gathering global health data) or a comparison of health indicators between the US, Western Europe and India.

30% -- Two take-home written assignments (one on a cultural topic and one related to health/environmental issues). Small group discussions may precede the assignments.

For the cultural assignment, each student should explore one health/environment situation from three cultural angles. The situation may be fictitious or based on a real experience. How do

cultural factors play out in medical/environmental intervention? The cultures may include American (recognising that there are many different “cultures” within the US) and Indian, though this is not mandatory. It is important for students to show cultural sensitivity in their assignment.

For the health/environment written assignment each student will identify a current health problem in India. You should select an issue different from the one being addressed in your group project. You will need to use the skills learned from the session taught by the Ebling librarian to research the literature in order to:

- a. Describe the health problem and its impact on the health of Indian people and, by comparison, its impact on health of United States citizens.
- b. Describe the upstream health determinants that may contribute to this problem in both countries.
- c. Describe interventions that are being used to improve the health problem both in India and the United States, highlighting the roles of health professionals from multiple disciplines.

30% -- Culminating Group presentations:

Students will be assigned to an interdisciplinary working group. Each group will 1) consider health in the context of culture/medical anthropology/economics/animal-human interaction/environmental issues/history and politics, 2) use community-based participatory research tools in a design of a potential project that would both gather data on a community issue and then use this data to help the community work toward solutions to the issue that is harming their health.

Each group will prepare a PowerPoint presentation and will be given 30 minutes for the presentation and discussion (e.g. 20 minute presentation and 10 minutes for Q/A). Each group should submit a copy of the PowerPoint presentation, literature references and a copy of the tool used for collecting information to the course instructors. Course grade will include group and individual components. Teams are asked to identify the individual contributions of team members in their presentations.

There is no final examination in this course. The grading scale for the course will be: 90-100 A; 85-89 AB; 80-84 B; 74-79 BC; 69-73 C; 64-68 D; 63 or below F.

January 19: Course Overview and Glimpses of India
Lalita du Perron, PhD

Overview of Global Public Health
Lori Diprete Brown, MSPH

Global Burden of Disease
Ann Behrmann, MD or Cindy Haq, MD, Director UWSMPH Center for
Global Health

Readings:

1) Towards a common definition of global health, Jeffrey P Koplan, T Christopher Bond, Michael H Merson, K Srinath Reddy, Mario Henry Rodriguez, Nelson K Sewankambo, Judith N

Wasserheit, for the Consortium of Universities for Global Health Executive Board*, *Lancet* **2009; 373: 1993–95**

2) Global public health: a scorecard, Robert Beaglehole, Ruth Bonita, *Lancet* **2008; 372: 1988–96**

3) Lopez AD et al; Measuring the Global Burden of Disease and Risk Factors; Chapter 1, pages 1-13; in *Global Burden of Disease and Risk Factors*; Oxford University Press and the World Bank 2006.

4) Lindstrand A, Bergstrom S, Rosling H, Rubenson B, Stenson B, Tylleskar T. *Global Health: An Introductory Textbook*. Narayana Press, Denmark 2007. Chapter 3: Health Indicators p. 99-122

January 26: *Bhopal Express* with brief discussion of Bhopal disaster 12/3/84
Lalita du Perron and Ann Behrmann

Readings:

1) The Bhopal disaster and its aftermath: a review, Edward Broughton, *Environmental Health: A Global Access Science Source* 2005, 4:6, 1-6, doi:10.1186/1476-069X-4-6

2) The Public Health Implications of the Bhopal Disaster, Report to the Program Development Board, American Public Health Association, Bhopal Working Group, *AJPH* February 1987, Vol. 77, No. 2, 230-6

3) Bhopal Gas Tragedy: Review of clinical and experimental findings after 25 years, Pradyumna K. Mishra, Ravindra M. Samarth, Neelam Pathak, Subodh K. Jain, Smita Banerjee, and Kewal K. Maudar, *International Journal of Occupational Medicine and Environmental Health* 2009;22(3):193 – 202

February 2: Global Health Information Resources—Ebling Library
Erika Severson, Senior Academic Librarian, SMHP

History of health and colonialism in India
Joe Elder, PhD

Reading:

1) Pati, Biswamoi and Mark Harrison, eds., *The Social History of Health and Medicine in Colonial India*, (New York: Routledge, 2009)

February 9: Epidemiology of diseases in India;
Indian health care system; Primary health care
Ann Behrmann MD

Methyl Isocyanate, environmental pollution and impact on vision
Suresh Chandra MD, Professor, Dept of Ophthalmology, Division of
International Ophthalmology, UWSMPH

Readings:

1) ”, R Steinbrook, “HIV in India—The Challenges Ahead, *New England Journal of Medicine* 2007, 356;12:1197-1201.

2) A J Mills, M K Ranson “The Design of Health Systems”, *International Public Health*, 2nd Edition, 2006, Ch 11: 513-47 (a comparison of Zambia, India, Mexico and Thailand)

3) N Andersson, M K Ajwani, S Mahashabde, M K Tiwari, M Kerr Muir, V Mehra, K Ashiru, C D Mackenzie “Delayed eye and other consequences from exposure to methyl isocyanate: 93% follow up of exposed and unexposed cohorts in Bhopal”, *British Journal of Industrial Medicine* 1990;47:553-558

Others TBD

February 16: India: Implications for Health Interventions and International Collaboration, and Cultural Humility
Joe Elder, PhD/ Lalita du Perron, PhD

Corporations, Government and Health—Ethical issues for communities
Marc Galanter Professor Emeritus, UW-Madison Law School

Readings:

Joe Elder: TBA

1) American personal-injury lawyers at Bhopal. Ethics and public policy in mass disaster, *New England Journal of Medicine*, 1985 vol:313 iss:17 pg:1068 -1070

February 23: Water and Sanitation: Human and Animal Health Interdependence
Environmental Strategies to alleviate Water Contamination
from Industrial or animal/human pollution

Instructor, TBD

Caste, purity and pollution
Joe Elder, PhD

Readings:

1) http://water.bhopal.org/report/BMA_Sambhavna_Bhopal_Water_Report.pdf

2) Water contamination: a legacy of the union carbide disaster in Bhopal, India, J Chander, *Int.J.Occup.Environ.Health*, 2001. 7, 1,:72-73

3) Douglas, Mary, *Purity and Danger*, Ch.1: “Ritual Uncleanliness:”, Ch.2: “Secular Defilement”. (Routledge, 1966)

4) Raheja, Gloria Goodwin, *The Poison in the Gift*, Ch. 2: “Auspiciousness and Inauspiciousness as Cultural Constructs”. (Univ of Chicago, 1988).

March 2: Film on health and goddess worship in India: *Sitala in Spring*
Lalita du Perron, PhD

Women, Development, Politics and Health
Christine Garlough, PhD

Readings:

- 1) Roy, Ananya, *Calcutta Requiem: Gender and the Politics of Poverty*, (Univ of Minnesota Press, 2007)
- 2) TBA

March 9: Ways of Learning from/with Communities: Community Based Research and development of topic-oriented research
Lori DiPrete Brown, MSPH

Readings:

- 1) Mathie, Alison and Gord Cunningham, MA, *From Clients to Citizens: Asset-Based Community Development as a Strategy For Community-Driven Development*, The Coady International Institute, St. Francis Xavier University, January 2002.
- 2) Furco, Andrew. "Service-Learning: A Balanced Approach to Experiential Education." *Expanding Boundaries: Service and Learning*. Washington DC: Corporation for National Service, 1996. 2-6.
- 3) *OUR PEOPLE, OUR RESOURCES, supporting rural communities in participatory action research on population dynamics and the local environment*. Thomas Barton, Grazia Borrini-Feyerabend, Alex de Sherbinin and Patrizio Warren with contributions from IUCN staff, members and partners
- 4) UCLA Center for Health Policy Research Health DATA Train the Trainer Project *Performing A Community Assessment: Curriculum Appendices*, Amy M. Carroll, MPH, Mercedes Perez, MPH and Peggy Toy, MA

March 23: Village religions
Lalita du Perron, PhD

Village and slum politics and the *panchayat* system
Adam Auerbach, MA

Readings:

- 1) Harris, John, "Political Participation, Representation and the Urban Poor", *Economic and Political Weekly*, March 12, 2005
- 2) Kohli, Atul (ed.), *The Success of India's Democracy*, (ch 1&5), (New York: Cambridge University Press, 2001)
- 3) Robinson, Rowena, *Sociology of Religion in India*, Part II: "Sects, Cults, Shrines, and the making of Traditions". (New Delhi: Sage, 2004)

March 30: Environmental Impact of air, soil, water pollution on Maternal/Fetal Outcomes

Maureen Durkin, PhD, MPH, DrPH, Professor, UWSMPH, Dept. of Population Health Sciences and Matt Karwowski MD, UWSMPH research fellow, MPH candidate

April 6: "One Health" in India: Intersections of Animal, Human and Environmental Health
F. Joshua Dein, VMD, MS Adjunct Associate Professor of Special Species Health, UW School of Veterinary Medicine/ Nelson Institute for Environmental

Air Pollution and Health in India, David Van Sickle, PhD, U of WI SMPH and Reciprocal Sciences

Readings:

1) Rabinowitz and Conti: *Human-Animal Medicine: Clinical Approaches to Zoonoses, Toxicants and Other Shared Health Risks.*

<http://www.us.elsevierhealth.com/ISBN/9781416068372/HumanAnimal-Medicine>

April 13: Ayurveda, traditional therapies and herbal pharmaceuticals in India
Sarah Khan, MS, MPH, PhD, U WI Dept of Family Medicine

Introduction to treatment modalities of Sambhavna Trust Clinic

Readings:

1) <http://www.nybg.org/bsci/staf/KhanBalickAyurvedaArticle.pdf>

April 20: Poverty, malnutrition and health
Ken Shapiro, PhD, Professor and Chairperson, Agricultural and Applied Economics (to be confirmed)

April 27-May 4: Revision and Student presentations

Additional Readings to Be Integrated into Course or Offered as Optional Reading:

Health-related

Breaking the earthenware jar: Lessons from South Asia to end violence against women and girls, by Ruth Finney Hayward

Perinatal and newborn care in South Asia: Priorities for action, ed. Zulfiqar A. Bhutta

Nationalizing the body: The medical market, print and daktari medicine, by Projit Bihari Mukharji

The Bhopal Saga: Causes and Consequences of the World's Largest Industrial Disaster by Ingrid Eckerman, MD, Universities Press, Hyderabad, India, 2005

Five Past Midnight in Bhopal by Dominique Lapierre and Javier Moro, Warner Books, 2002

Present Toxic Future, report published January 2002 by the Fact-Finding Mission on Bhopal (FFMB).

History

In spite of the Gods: The rise of modern India, by Edward Luce

India after Gandhi: the history of the world's largest democracy, by Ramachandra Guha

Fiction

A Breath of Fresh Air by Amula Malladi

Animal's People by Indra Sinha

Tamas, by Bhisham Sahni

The White Tiger, by Aravinda Adiga

Brief Description of Companion Field Course (PHS 645 section 005)

Students who have completed the course can apply for a 1-3 credit field experience at the Sambhavna Clinic in Bhopal (this will be proposed in the fall as a section of PHS 645 Global Health Field Study). A small group of 8-12 students will be taken to Bhopal, faculty-led by Lalita du Perron and Ann Behrmann. They will be able to observe and contribute to the workings of the Sambhavna Clinic. The clinic has a guest house for foreign students and is used to hosting scholars and visitors from abroad. Knowledge of Hindi is not required though where available will be put to good use.

Students will learn first hand about the burden of disease as it related to methyl isocyanate exposure: immediate effects that impact health of survivors; and understand concepts of teratogenicity, carcinogenicity and other long term health effects of persistent environmental pollution of water, soil (volatile organic solvents, heavy metals). They will also learn about the efforts and resilience of the local population as it continues to deal with the disaster years later. This course will be modeled after the successful programs in Uganda, Thailand and Ecuador. Below is a brief description. A full program with tentative dates will be presented in a spring proposal entitled PHS 645 section 005, Global Health Field Study, India.

The Sambhavna Clinic began in 1995 in order to provide relief to victims of the Union Carbide gas disaster. The Sambhavna Trust is a charitable trust run by a group of eminent doctors, scientists, writers and social workers who have been involved with various aspects of the Union Carbide disaster ever since its occurrence in December 1984. The work carried out by the Sambhavna Trust has shown that it is possible to evolve simple, safe, effective, ethical and participatory ways of treatment monitoring and research for the survivors of Bhopal.

At Sambhavna, survivors are offered free medical care through allopathy, ayurveda (an indigenous system of medicine based on herbs) and Yoga. The 45 staff members of the Sambhavna clinic (among whom 23 are survivors themselves) include five physicians, two yoga and two Panchakarma therapists and five community health workers who carry out health surveys, health education and community organisation for better health. The Sambhavna clinic stands in about one acre of medicinal herb garden in the heart of the gas-affected area of Bhopal, half a kilometre from the disused Union Carbide factory and directly south of JP Nagar, the worst-hit neighbourhood. A new clinic, opened in 2006, is ecologically constructed throughout and designed to provide a pleasant and uplifting environment.

Students will work under the direction of the Sambhava staff in both clinical settings and with community workers in the ten communities served by the Sambhava Trust. Students will not only observe clinical treatments and preventive health education, but will participate in projects underway in communities, such as data collection, environmental monitoring and restoration and other tasks appropriate to their specific skill sets. During their field term each student will create a structured field journal. This completed journal along with a short final paper focused on a specific project they worked on at Sambhava will be due before the fall semester 2011 begins.