

# Social Medicine in the Twenty-First Century

The *PLoS Medicine* Editors, Scott Stonington, Seth M. Holmes



This is one of a series of articles on social medicine in the October 2006 issue

In its launch issue in October 2004, *PLoS Medicine* signaled a strong interest in creating a journal that went beyond a biological view of health to incorporate socioeconomic, ethical, and cultural dimensions. For example, that first issue contained a policy paper on how the health community should respond to violent political conflict [1], a debate on whether health workers should screen all women for domestic violence [2], and a study on the global distribution of risk factors for disease [3].

Two years on, our October 2006 issue takes our interest even further. It contains a special collection of ten magazine articles and five research papers devoted entirely to social medicine. We are delighted that the collection features many of the leaders in the field, including the renowned medical anthropologists Paul Farmer and Arthur Kleinman, the former United States Surgeon General David Satcher, and the Harvard professor of social medicine and psychiatry Leon Eisenberg.

Most of our readers have welcomed our inclusive view of what a medical journal should highlight. Some, however, have been critical, suggesting that we should publish “less soft stuff” and more “hard science.” These critics might argue that in this era of stem cell research and the human genome project, of molecular medicine and DNA microarray technology, the notion of social medicine seems irrelevant and outmoded.

But the ultimate role of a medical journal is surely to contribute to health improvement, and that means looking not just at molecules but at the social structures that contribute to illness. The stark fact is that most

disease on the planet is attributable to the social conditions in which people live and work [4]. The socially disadvantaged have less access to health services, and get sicker and die earlier than the privileged. Despite impressive technological advances in medicine, global health inequalities are worsening.

“All medicine is inescapably social,” said Leon Eisenberg [5], and we entirely agree. Take, for example, the announcement of the sequencing of the human genome, which the BBC predicted would mean we could “banish inherited disorders, screen people for their vulnerability to diseases, tailor treatment to an individual’s genetic make-up, create thousands of new drugs and extend human lifespan” [6]. In time, perhaps these predictions will be partly or fully realized. What is certain, though, is that the human genome project has also opened up an immediate Pandora’s Box of complex ethical, legal, and social issues. These issues include ensuring equity in patients’ access to the fruits of the project and balancing the benefits, risks, and economic costs of genetic screening. Even the human genome is “inescapably social.”

And so, to complement the papers on molecular medicine that we have published over the last two years—such as papers on genetic mutations that confer resistance to cancer drugs [7,8] or on differentiation of insulin-producing cells from human neural progenitor cells [9]—we have also dedicated space in the journal to considering the large-scale social forces that give rise to human disease and affect its distribution around the globe. These include economics, politics, legal institutions, and power structures.

Throughout our special collection, one pioneer in understanding these large-scale social forces is repeatedly acknowledged—Rudolf Virchow. In his 1848 medical report of an outbreak of typhus in Silesia, Virchow concluded that poverty and living conditions, not biology, were the prime causes of the epidemic [10].

While an understanding of these large-scale forces remains social medicine’s base and one of its most important tasks, this special collection shows the ways in which finer-grained social forces have an equally important effect on health. The different levels at which social forces operate can be considered as four primary domains, beginning in the clinical encounter and opening outward to society and the globe.

The first domain, then, is made up of the cultural and social aspects of the relationship between patients and health professionals. This relationship is a social negotiation affected by beliefs, practices, interests, and power dynamics. Communication within this relationship can have a powerful impact upon health outcomes. The influence of this relationship upon health is not limited to Western, allopathic, biomedical systems but is equally as important in other medical systems throughout the world [11].

The second domain involves patients’ beliefs, practices, and experiences. Patients’ experiences of and responses to suffering are not confined to the clinical encounter and vary dramatically among different populations. Understanding the specifics of people’s everyday lives is essential to engaging with them and their illnesses [12,13].

The third domain is the culture of medicine itself. Health professionals and institutions have their own cultures that also go beyond clinical interactions. Health systems and health research both contain agendas,

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**Table 1.** The Four Domains of Social Medicine in the Special Collection

Domain of Social Medicine	Authors	Title and Reference
<b>Relationship between patients and health professionals</b>	Arthur Kleinman and Peter Benson	Anthropology in the clinic: The problem of cultural competency and how to fix it. <i>PLoS Med</i> 3(10): e294.
	Philippe Bourgois, Alexis Martinez, Alex Kral, Brian R. Edlin, Jeff Schonberg, and Dan Ciccarone	Reinterpreting ethnic patterns among white and African American men who inject heroin: A social science of medicine approach. <i>PLoS Med</i> 3(10): e452.
<b>Patients' beliefs, practices, and experiences</b>	Tarif Bakdash and Nancy Scheper-Hughes	Is it ethical for patients with renal disease to purchase kidneys from the world's poor? <i>PLoS Med</i> 3(10): e349.
	Dorothy Porter	How did social medicine evolve, and where is it heading? <i>PLoS Med</i> 3(10): e399.
<b>The culture of medicine</b>	Scott Stonington and Pinit Ratanakul	Is there a global bioethics? End-of life in Thailand and the case for local difference. <i>PLoS Med</i> 3(10): e439.
	Maya L. Ponte	Insights into the management of emerging infections: Regulating variant Creutzfeldt-Jakob Disease transfusion risk in the UK and US. <i>PLoS Med</i> 3(10): e342.
	Rafael Campo	"Anecdotal evidence": Why narratives matter to medical practice. <i>PLoS Med</i> 3(10): e423.
	Rajesh Gupta	Why should medical students care about health policy? <i>PLoS Med</i> 3(10): e199.
	Nelson Martins, Paul M. Kelly, Jocelyn A. Grace, and Anthony B. Zwi	Reconstructing tuberculosis services after major conflict: Experiences and lessons learned in East Timor. <i>PLoS Med</i> 3(10): e383.
	Timothy H. Holtz, Seth M. Holmes, Scott Stonington, and Leon Eisenberg	Health is still social: Contemporary examples in the age of the genome. <i>PLoS Med</i> 3(10): e419.
<b>The social determinants of disease</b>	David Satcher	Ethnic disparities in health: The public's role in working for equality. <i>PLoS Med</i> 3(10): e405.
	Paul E. Farmer, Bruce Nizeye, Sara Stulac, and Salmaan Keshavjee	Structural violence and clinical medicine. <i>PLoS Med</i> 3(10): e449.
	Seth M. Holmes	An ethnographic study of the social context of migrant health in the United States. <i>PLoS Med</i> 3(10): e448.
	Colin Butler and Sharon Friel	Time to regenerate: Ecosystems and health promotion. <i>PLoS Med</i> 3(10): e394.
	S. V. Subramanian, George Davey Smith, and Malavika Subramanyam	Indigenous health and socioeconomic status in India. <i>PLoS Med</i> 3(10): e421.

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prejudices, and beliefs that can lead to certain perspectives being favored as the most legitimate. Understanding the culture of medicine is essential to understanding health professionals' attitudes toward illness, patients, and treatments [14–16].

The final domain brings us, full circle, back to Virchow and the large-scale forces that shape health, which have become known as the social determinants of disease. The 15 papers in the special collection each relate to at least one of these four domains, as shown in Table 1.

In their compelling policy paper for this special collection, Paul Farmer and

colleagues argue that while the search for the molecular basis of disease has been enormously fruitful, there has at the same time been a “desocialization” of scientific inquiry. In other words, they say, there has been “a tendency to ask only biological questions about what are in fact *biosocial* phenomena” [17]. We hope that our special collection helps to “resocialize” our understanding of disease distributions and outcomes. ■

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### References

- Zwi AB (2004) How should the health community respond to violent political conflict? *PLoS Med* 1: e14. DOI: 10.1371/journal.pmed.0010014
- Taket A, Wathen CN, MacMillan H (2004) Should health professionals screen all women for domestic violence? *PLoS Med* 1: e4. DOI: 10.1371/journal.pmed.0010004
- Rodgers A, Ezzati M, Vander Hoorn S, Lopez AD, Lin RB, et al. (2004) Distribution of major health risks: Findings from the Global Burden of Disease study. *PLoS Med* 1: e27. DOI: 10.1371/journal.pmed.0010027
- Irwin A, Valentine N, Brown C, Loewenson R, Solar O, et al. (2006) The Commission on Social Determinants of Health: Tackling the social roots of health inequities. *PLoS Med* 3: e106. DOI: 10.1371/journal.pmed.0030106
- Eisenberg L (1999) Does social medicine still matter in an era of molecular medicine? *J Urban Health* 76: 164–175.
- European Commission (2004) Ethical, legal and social aspects of genetic testing: Research, development and clinical applications. Luxembourg: Office for Official Publications of the European Communities. Available: [http://ec.europa.eu/research/conferences/2004/genetic/pdf/report\\_en.pdf](http://ec.europa.eu/research/conferences/2004/genetic/pdf/report_en.pdf). Accessed 22 September 2006.
- Pao W, Wang TY, Riely GJ, Miller VA, Pan Q, et al. (2005) KRAS mutations and primary resistance of lung adenocarcinomas to gefitinib or erlotinib. *PLoS Med* 2: e17. DOI: 10.1371/journal.pmed.0020017
- Pao W, Miller VA, Politi KA, Riely GJ, Somwar R, et al. (2005) Acquired resistance of lung adenocarcinomas to gefitinib or erlotinib is associated with a second mutation in the EGFR kinase domain. *PLoS Med* 2: e73. DOI: 10.1371/journal.pmed.0020073
- Hori Y, Gu X, Xie X, Kim SK (2005) Differentiation of insulin-producing cells from human neural progenitor cells. *PLoS Med* 2: e103. DOI: 10.1371/journal.pmed.0020103
- Virchow R (1879 [1985]) Report on the typhus epidemic in Upper Silesia (1848). In: Rafter LJ, editor. *Rudolf Virchow: Collected essays on public health and epidemiology*. Canton (MA): Science History. pp. 205–319.
- Kleinman A (1981) *Patients and healers in the context of culture*. Berkeley: University of California Press. 427 p.
- Fadiman A (1998) *The spirit catches you and you fall down: A Hmong child, her American doctors, and the collision of two cultures*. New York: Noonday Press. 341 p.
- Kleinman A (1988) *The illness narratives: Suffering, healing, and the human condition*. New York: Basic Books. 284 p.
- Adams V (2002) Randomized controlled crime: Post-colonial sciences in alternative medicine research. *Soc Stud Sci* 32: 659–690.
- Gordon DR, Paci E (1997) Disclosure practices and cultural narratives: Understanding concealment and silence around cancer in Tuscany, Italy. *Soc Sci Med* 44: 1433–1452.
- Pigg SL (2001) Languages of sex and AIDS in Nepal: Notes on the social production of commensurability. *Cult Anthropol* 16: 481–541.
- Farmer PE, Nizeye B, Stulac S, Keshavjee S (2006) Structural violence and clinical medicine. *PLoS Med* 3: e449. DOI: 10.1371/journal.pmed.0030449