

## Poor Health in Rich Countries: A Role for Open Access Journals

The PLOS Medicine Editors\*

Readers may be familiar with reports of a country where economic conditions have pushed the healthcare system toward collapse. The country's government reported in 2012 that "health care spending per person has grown faster than the nation's economic output per person during the past 25 years," and that "such rates of growth cannot continue indefinitely, because if they did, total spending on health care would eventually account for all of the country's economic outputan impossible outcome" [1]. Although the country's economy is large, its life expectancy among adults, rates of chronic disease and injuries among adolescents and children, and infant mortality all show it to be at a marked disadvantage among comparable high-income nations [2].

That country is the United States, where a recent report by the Institute of Medicine noted that "the American health—wealth paradox is a pervasive disadvantage that affects everyone, and it has not been improving" [2]. Although income is not the sole explanation for poor health indicators in the US, tens of millions of Americans, characterized in part by race and relative poverty, experience levels of health that are typical of middle-income or low-income countries [3].

The US provides a striking but by no means isolated example of how relative poverty remains a powerful determinant of health in rich countries. That other highincome countries outperform the US in health indicators and in controlling healthcare costs [4] does not change the fact that their own low-income populations experience health problems to an extent that aggregate indicators of prosperity (such as per capita income or gross domestic product) fail to predict. Among 20 Western countries, child mortality correlates strongly with the gap between the highest and lowest 20% of incomes, but not with overall health expenditures [5]. Two- to four-fold increases in mortality between highest and lowest socioeconomic strata have been reported in the UK [6]. In Greece and Ireland the implementation of austerity measures after 2007 coincided with substantial increases in suicide rates, providing tragic evidence for the health impact of economic policies that widen the gap between rich and poor [7]. To the extent that socioeconomic disparities constitute a major and growing determinant of health, we believe that general medical journals must take an active role in promoting the care of populations at greatest risk, regardless of the average income of their country of residence.

For at least three reasons, Open Access journals should lead the publication of papers on disadvantaged populations in high-income as well as lower-income countries. First, in order to attain their full impact these papers must be freely accessible to the affected public and to advocacy groups, without subscription barriers. Second, to permit adaptation and re-analysis, the results and data must be openly available without copyright restrictions.

Third, Open Access journals, by virtue of their business models, are free to prioritize papers on cost-effective, widely accessible approaches to healthcare, because these journals need not depend on the promotion of new, expensive drugs and medical devices. For closed-copyright journals, marketing strategies involving these products can generate lucrative reprint sales [8] and substantial advertising revenue [9]. However, to the extent that a journal's practices establish market demand for costly treatments of minimal incremental value, that journal contributes

to the unsustainable escalation of healthcare costs. *PLOS Medicine* has, since its inception, declined to advertise pharmaceuticals and medical devices [10], leaving the journal free to make editorial decisions without competing concerns over advertising income. We believe that this policy has supported our efforts to serve as a truly global journal, in the sense that "the global in global health refers to the scope of problems, not their location. Thus... global health can focus on domestic health disparities as well as cross-border issues" [11].

Indeed, for many issues that affect the health of poor people, clear-cut distinctions between "domestic" and "crossborder" research are becoming increasingly difficult to draw, as topics of this month's PLOS Medicine papers illustrate [12,13,14,15]. The "universal test and treat" approach—first proposed by WHO researchers based on characteristics of HIV transmission in southern Africa [16]—has informed HIV treatment recommendations and prevention programs in North America. Roadblocks to polio eradication in Afghanistan, Pakistan, and Nigeria find unfortunate parallels in Western anti-vaccination movements that have involved misinterpretations of scientific evidence in the context of political agendas. A recent editorial in PLOS Neglected Tropical Diseases points out that NTDs found among poor people in wealthy countries contribute substantially to health disparities, and exhibit many of the same

**Citation:** The *PLOS Medicine* Editors (2013) Poor Health in Rich Countries: A Role for Open Access Journals. PLoS Med 10(10): e1001543. doi:10.1371/journal.pmed.1001543

Published October 29, 2013

**Copyright:** © 2013 *PLoS Medicine* Editors. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

**Funding:** The authors are each paid a salary by the Public Library of Science, and they wrote this editorial during their salaried time.

**Competing Interests:** The authors' individual competing interests are at http://www.plosmedicine.org/static/ editorsInterests.action. PLOS is funded partly through manuscript publication charges, but the *PLOS Medicine* Editors are paid a fixed salary (their salaries are not linked to the number of papers published in the journal).

The *PLOS Medicine* Editors are Laureen Connell, Rhona MacDonald, Larry Peiperl, Amy Ross, Paul Simpson, and Margaret Winker.

\*E-mail: medicine\_editors@plos.org

Provenance: Written by editorial staff; not externally peer reviewed.

1

features as NTDs seen predominantly in lower-income countries, including adverse impact on child development, pregnancy outcomes, and worker productivity [17]. At the same time, noncommunicable diseases such as diabetes and coronary artery disease, once seen as the scourges of wealthy countries, urgently require action as increasingly frequent causes of illness and death in lower- and middle-income countries [18,19]. Whether performed in poorer or richer countries, research on diseases that disproportionately affect poor

people is increasingly relevant across all countries

According to the Institute of Medicine report cited above, "In countries with the most favorable health outcomes, resource investments and infrastructure often reflect a strong societal commitment to the health and welfare of the entire population" [2]. The *PLOS Medicine* editors agree, and we believe that Open Access journals are well positioned to strengthen such commitments by advancing practical options for improving care across the socioeconomic spectrum. As a general medical journal of

global scope, we encourage the submission of papers that address clinically important problems among vulnerable, underserved, and disadvantaged populations in high- as well as lower-income countries.

## **Author Contributions**

Wrote the first draft of the manuscript: LP. Contributed to the writing of the manuscript: LC RM MN LP AR PS MW. ICMJE criteria for authorship read and met: LC RM MN LP AR PS MW. Agree with manuscript results and conclusions: LC RM MN LP AR PS MW.

## References

- Congress of the United States Congressional Budget Office (June 2012) The 2012 Long-Term Budget Outlook. Chapter 3: The Long-Term Outlook for Major Federal Health Care Programs. Available at: http://www.cbo.gov/sites/default/files/cbofiles/attachments/06-05-Long-Term\_Budget\_Outlook\_2.pdf. Accessed 1 June 2013.
- National Research Council and Institute of Medicine (2013) U.S. Health in International Perspective: Shorter Lives, Poorer Health. Panel on Understanding Cross-National Health Differences Among High-Income Countries, Steven H. Woolf and Laudan Aron, Eds. Committee on Population, Division of Behavioral and Social Sciences and Education, and Board on Population Health and Public Health Practice, Institute of Medicine. Washington, DC: The National Academies Press. Available at: https://download.nap.edu/ catalog.php?record\_id=13497. Accessed 1 June 2013.
- Murray CL, Kulkarni SC, Michaud C, Tomijima N, Bulzacchelli MT, et al. (2006) Eight Americas: Investigating mortality disparities across races, counties, and race-counties in the United States. PLoS Med 3(9): e260. doi:10.1371/journal.pmed.0030260
- Rosenthal E (1 June 2013) The \$2.7 trillion medical bill: Colonoscopies explain why U.S. leads the world in health expenditures. New York Times. Available at: http://www.nytimes.com/ 2013/06/02/health/colonoscopies-explain-whyus-leads-the-world-in-health-expenditures. html?hp&\_r=0. Accessed 1 June 2013.

- Pritchard C, Williams R (2011) Poverty and child (0–14 years) mortality in the USA and other Western countries as an indicator of "how well a country meets the needs of its children" (UNI-CEF). Int J Adolesc Med Health 23(3): 251–255.
- Wilkinson RG (1997) Health inequalities: Relative or absolute material standards? BMJ 314: 591–595.
- Stuckler D, Basu S, Suhrcke M, Coutts A, McKee M (2011) Effects of the 2008 recession on health: A first look at European data. Lancet 378: 124– 125
- Handel AE, Patel SV, Pakpoor J, Ebers GC, Goldacre B, et al. (2012) High reprint orders in medical journals and pharmaceutical industry funding: Case-control study. BMJ 344: e4212. doi:10.1136/bmj.e4212
- Smith R (2005) Medical journals are an extension of the marketing arm of pharmaceutical companies. PLoS Med 2(5): e138. doi:10.1371/journal.pmed.0020138
- PLoS Medicine Editors (2004) Prescription for a healthy journal. PLoS Med 1(1): e22. doi:10.1371/journal.pmed.0010022
- Koplan JP, Bond TC, Merson MH, Reddy KS, Rodriguez MH, et al. (2009) Towards a common definition of global health. Lancet 373(9679): 1993–1995. doi:10.1016/S0140-6736(09)60332-9
- Hontelez JAC, Luric MN, Bärnighausen T, Bakker R, Baltussen R, et al. (2013) Elimination of HIV in South Africa through expanded access to antiretroviral therapy: A model comparison study. PLoS Med 10(10): e1001534. doi:10.1371/ journal.pmed.1001534

- Ford N, Hirnschall G (2013) Modelling the strategic use of antiretroviral therapy for the treatment and prevention of HIV. PLoS Med 10(10): e1001535. doi:10.1371/journal.pmed. 1001535
- Closser S, Jooma R (2013) why we must provide better support for Pakistan's female frontline health workers. PLoS Med 10(10): e1001528. doi:10.1371/journal.pmed.1001528
- Abimbola S, Malik AU, Mansoor GF (2013) The final push for polio eradication: Addressing the challenge of violence in Afghanistan, Pakistan, and Nigeria. PLoS Med 10(10): e1001529. doi:10.1371/journal.pmed.1001529
- Granich RM, Gilks CF, Dye C, De Cock KM, Williams BG (2009) Universal voluntary HIV testing with immediate antiretroviral therapy as a strategy for elimination of HIV transmission: A mathematical model. Lancet 373(9657): 48–57. doi:10.1016/S0140-6736(08)61697-9
- Andrus J, Bottazzi ME, Chow J, Goraleski KA, Fisher-Hoch SP, et al. (2013) Ears of the armadillo: Global health research and neglected diseases in Texas. PLoS Negl Trop Dis 7(6): e2021. doi:10.1371/journal.pntd.0002021
- Sridhar D, Brolan CE, Durrani S, Edge J, Gostin LO, et al. (2013) Recent shifts in global governance: Implications for the response to non-communicable diseases. PLoS Med 10(7): e1001487. doi:0.1371/journal.pmed.1001487
- The PLOS Medicine Editors (2012) Addressing global disparities in the burden of noncommunicable diseases: Call for papers. PLoS Med 9(12): e1001360. doi:10.1371/journal.pmed.1001360