INVITED EDITORIAL

Addressing Global Health Research in the National Interest

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The *Journal of Public Health Dentistry* focuses on public health issues, including articles from investigators located in various parts of the globe. Whether those public health issues are early childhood caries, advocacy for fluoride to prevent dental caries, tobacco cessation, dental anxiety, missing teeth, perceptions of oral health, or health service delivery, the research that is reported helps to enlighten all readers who, no matter where they live, are concerned about the well-being of their own national or local communities.

The United States, both in the public and private sectors, invests approximately 110 billion dollars every year on health-related research, but only 10 percent goes toward research to fight diseases that disproportionately affect people in developing countries (1). While it is probably true that much of the funded research benefits all people in that knowledge generated in any given locale sheds light beyond those geographic borders, it is also axiomatic that research must be relevant to specific populations to have appropriate application and ultimate benefit to those communities.

Aside from humanitarian motivations to invest in global health research, what is often overlooked is the motivation of "self-interest." Investments in global research on modalities of prevention, diagnoses, and treatment, or even in the etiology and epidemiology of chronic or acute disease and disorders, is not only an investment driven by humane interests; but that investment also can be a cost-effective strategy to obtain critical knowledge for effective applications. I recall the motivation behind the US investment in the United States Public Health Service/World Health Organization (WHO) International Collaborative Study of Dental Manpower Systems in Relation to Oral Health Status (nb. the original name for the first WHO International Collaborative Study of Oral Health Systems). The US government had a "need to know" about those specific structural components of nationally developed oral health systems that seemed to work to improve oral health of their respective populations. In the late 60s and early 70s, there was a national debate about which models of national health care systems could effectively cover all Americans. However, the United States was characteristically a "fee-for-service" system without adequate variation of other models to study. If we looked outside our borders, there were many other models that had existed for decades. With the assistance and leadership of WHO and more than a dozen other industrialized national governments, their dental associations, their scientists, and their people, we were able to launch not one, but two, such international collaborative studies to compare and contrast effective component structures. There were lessons learned for the United States and each nation, and those initial outcomes were documented in the first monograph of results (2).

John Marburger, III, the director of the Office of Science and Technology Policy, Executive Office of the President of the United States, wrote an editorial in *Science* (3), in which he raised questions of how much a nation should invest in science, what kind of science, and how much from public versus private sources. He argued for compelling data for policy decisions and more credible advocacy. He did not question whether research and development (R&D) investments are important; he raised issues of strategies in a rapidly changing global environment for science. He wrote about benchmarking data and the need to know how countries compare with each other in specific areas of science and their related technical workforce. He recognized, as do many others, that globalization processes and changes in science blur disciplinary distinctions and undermine how we traditionally think about national R&D investment priorities. He argued for new models that encompass many variables that can provide reasonable approximations from a sufficient range of countries in order to develop specific policy choices. It is clear to me, at least, that we need to engage in new ways of thinking about national investments, taking into consideration scientific talent and health problems, not only those that exist in our own country, but as they exist worldwide. Only then will we be able to see not only the bigger picture of resources, particularly scarce in any given country, but also the potential problems to be faced now or in the future, as well as possible solutions to those problems.

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I am convinced that it is in our own national self-interest to look globally, expanding our horizons to explore research talent, public health issues, and unique solutions that may not be so visible within one's own borders. The articles in the *Journal of Public Health Dentistry* should be read with a view that they may represent a sample of lessons learned, which have potential relevance for our own public. We need to encourage more high-quality research from many nations, if only to release our imaginations to a future of public health dentistry marked by creative ideas and new effective solutions. Think also about how we might collaborate with scientists outside our national borders, meeting more regularly in scientific conferences and smaller workshops, encouraging joint training activities and programs, facilitating collaborative research projects, and thus generating collaboratively authored articles to be submitted for global peer review.

Global health research should be a national R&D investment strategy for the United States, if not also for other major industrialized nations. Oral health research should be a vital part of that strategy. But research investments that address problems and solutions only relevant to one country may not allow any donor country the freedom to imagine the full range of potential benefits for global health. The problems and solutions found in developing countries or in countries of economic transition may serve as the stage for projects to open our eyes to innovative possibilities for solving our own national or local dilemmas. Science is global by its very nature, and trying to confine those activities to geographic boundaries is akin to putting blinders on our eyes – preventing us from viewing the world of opportunity and public good.

Lois K. Cohen is a Paul Rogers Ambassador for Global Health Research and formerly the Associate Director for International Health, National Institute of Dental and Craniofacial Research, National Institutes of Health, US Department of Health and Human Resources.

References

1. Connelly E, Probst S. Investment in U.S. health research. Research!America; 2005. Available from: http://www.researchamerica.org/publications/appropriations/healthdollar2005.pdf
2. Barmes D, Cohen LK, Hunter PBV, Ship II. Oral health care systems. London: Quintessence Publishing Co., Ltd.; 1985.
3. Marburger J, III. Editorial — wanted: better benchmarks. Science. 2005 20 May; 308(5725):1087.

Erratum

In JPHD 66-4, p. 292, "Childhood Overweight and Orthodontists: Results of a Survey," the following error was published:

"Over thirty percent of adolescents in the United States are overweight (BMI (body mass index) > 95% for age and sex) or at risk for overweight (BMI > 85% for age and sex) (1)."

The BMI definitions of at risk for overweight and overweight were not correctly represented. The correct definitions are as follows: at risk for overweight (BMI ≥ 85% < 95% for age and sex) and overweight (BMI ≥ 95% for age and sex).

We apologize for this error.

Reference

Huang JS, Becerra K, Walker E, Hovell MF. Childhood overweight and orthodontists: results of a survey. J Public Health Dent. 2006;66(4):292–4.