HAMP Hospital Administration and Medical Practices

EDITORIAL

Global health systems: Challenges amidst trying times

J. Warren Salmon*

Department of Public Health, Pharmacy, and Public Policy, University of Illinois, Chicago, IL 60607, USA

ABSTRACT

AbstractMore study of global health systems may open greater possibilities for reform to benefit all national health systems for and successes found in improved performance. No easy tasks lie in our immediate future. The social learning from those experiences could have aided a better global response to the COVID-19 outbreaks but have fallen short due to lower priority. Several public health scholars have engaged in conceptualizing global health systems within an international health framework with attempts to make greater sense of the varying paths and approaches those nations have chosen over time.

Key words: national health systems, social epidemics, multinational drug firms, clinical pharmacy, pharmacovigilance, pharmacoepidemiology, COVID-19 pandemic

INTRODUCTION

Global health systems have been devastated by the ongoing COVID-19 pandemic, which has now been going on for three years. It was concerning to see so many structural flaws exposed and to observe how poorly developed even the advanced countries' public health systems were. Their lack of concern for the countries in the Southern Hemisphere that are still struggling with this disease was also evident in their failed policies and slowness to react to the epidemic's effects on their populations. It is most disturbing to see that additional disease outbreaks may gain footholds without greater international planning. Global health initiatives have enabled wider stakeholder participation in service delivery while often having early negative systems effects through establishing parallel bodies and processes that are poorly coordinated, harmonized and aligned with national systems.[1,2]

Previous zoonotic outbreaks in various areas (*e.g.*, Avian and Swine flus, Ebola, Zika, MERS, other SARS viruses, *etc.*) have greatly damaged health systems in selected areas. The social learning from those experiences could have aided a better global response to the COVID-19 outbreaks and previously established structures for TB, malaria, and HIV/AIDS could have received support for some initial outbreaks. Recently, the disciplines of virology, immunology, and social epidemiology have been advancing since 2020. The social learning from those experiences could have aided a better global response to the COVID-19 outbreaks but have fallen short due to lower priority. Together these zoonotic diseases, it might be said, noted the need for better coordinated public health preparedness, which should be made a top global priority. Also on the global agenda, fragile health systems abroad should be strengthened for detection of greater animal-to-human transfers. The latter likelihood comes with the increasingly globalized economy where trade, tourism, and other transit marks the close inter-relationships among nations, thus the spread of COVID-19 well beyond Wuhan. After economies were weakened by COVID, the policy push to get back to "normal" exceeded the end of infections in most nations. Tense geopolitics has overshadowed the debate over the viral origin, besides curtailing ongoing

***Corresponding Author:**
J. Warren Salmon, Independent Researcher and Author, Professor of Health Policy and Administration, Professor and Head of Pharmacy Administration, Professor of Public Policy, and Adjunct Professor of Medical Education (Retired), University of Illinois, Chicago, IL 60607, USA. E-mail: jsjwsalmon@gmail.com

Received: 12 May 2023; Revised: 3 July 2023; Accepted: 5 July 2023; Published: 9 August 2023
https://doi.org/10.54844/hamp.2023.0039

scientific cooperation; it should be noted that scientists try to stay beyond the furor of such political conflicts.

Politicians over the advanced nations of China, India, England, and the United States failed to successfully address the rise of the COVID-19 virus for their own populations.[3] Moreover, the absence of international cooperation in scientific collaboration led to the advent of "vaccine nationalism" which provided different competing drug entities with varying effectiveness in the absence of what may have emerged as a more complete understanding of this new SARS virus and its rapid spread. Internationally, scientists and health officials mostly speak the same language and enjoy fine interpersonal relations.

Thus, all nations may have better contained their respective scourges had a more forthright multinational effort in science and then financial support sought to develop the disciplines of virology, immunology, and social epidemiology, each of which has now advanced in certain quarters with the pandemic's rise. Pharmacovigilance of drug use patterns here is key.

For the United States, a *New England Journal of Medicine* perspective[4] reflected on:

The COVID-19 pandemic has shown a spotlight on the fragmented nature of the us health care system. Some Americans were fortunate to enter the pandemic with comprehensive health insurance and to retain their coverage as the public health emergency dragged on for weeks, then months, then years. Some people have been protected, if temporarily, by federal congressional and administrative actions designed to expand subsidies for private health insurance, maintain Medicaid enrollments, and reimburse health care providers for testing uninsured people for SARS-COV-2 and treating those who are ill. Others continue to slip through the many cracks in our system and find themselves in peril not only by a life-threatening virus, but also life-ruining medical bills. In the absence of a national public health system, Frieden notes that the United States needs a steady supply of funding to states and localities to help them shore up their public health departments and for sustainability to respond to day-to-day concerns and crises. Whether in preparation for the next zoonotic disease that will spread rapidly across the nation, this infrastructure development is absolutely necessary and laid bare by our past three years' experience.

This depiction of the United States, allegedly the richest resourced nation, summed up this nation's general unpreparedness amid the multitude of attending issues regarding the readiness of most nations for any impending possibility of future public health catastrophes. Notwithstanding the Trump administration's atavism in international relations (withdrawing from the Paris Accords, abandoning the Iran nuclear treaty, attacks on NATO and Trump's withdrawal from the World Health Organization) soured cooperation among even allies; it would have been worthwhile for at least the superpowers to unite for scientific cooperation in vaccine and treatment modalities, in addition for planning to effectively aid nations in the Southern Hemisphere with leadership, debt relief, and ample vaccine resources to support their COVID responses through say COVAX. Recall even with the popular fear and misunderstanding at the beginning pandemic that the global political atmosphere among many nations was toxic. Unfortunately, trust in public health authorities has waned considerably.

Demonstrated policy failures need to receive reviews and critique as part of preparing for any next wave of zoonotic disease outbreaks. Given this lack of global concern without needed international cooperation and the slowness of international agencies' collaborations, another crucial question arises: how can the world anticipate the health implications from climate change and its attending consequences amid the ongoing conflicting geopolitics?

NEED FOR GLOBAL HEALTH STUDIES

The rise of future unanticipated problems more than ever requires new approaches to maximize the benefits from science everywhere so future collaborations will be essential amidst rebuilding complicated, fragile health systems, including now the United States.[5]

Our world is growing in complexity and diversity. Each nation's political, economic, and sociocultural dynamics hold vast implication for the health and health care of our global citizenry. Equity and social justice themes lately echo across the globe health literature.[6,7] Accounts also focus more on hinderances to health,[8] pointing out the deleterious conditions of capitalist development.[9] The ongoing turmoil facing many populations—whether it be effects of climate change (such as drought, famine, and other weather mishaps), mass migrations, ethnic strife, environmental degradation, and the overall deteriorating geopolitics between the West, Russia, and China; all of these demand that public health leadership articulate global population needs and find ways to devote adequate resources for public health planning at the world level.[8] Our deteriorating geopolitics is seriously affecting trade exchanges, food supplies, debt removal, and economic growth, each adding to worsening social determinants of health.

Over the years, several public health scholars have engaged in conceptualizing global health systems within

an international health framework[10,11] with attempts to make greater sense of the varying paths and approaches those nations have chosen over time. Thorough analyses are key to strategizing how health care can be more effectively organized, financed, and delivered to varying population groups within each nation.[5] Rarely are the social determinants of health, along with the broader social, occupational, and environmental health needs of populations, matched well to the designated configuration of health care delivery of services, though greater international advocacy for such has become more influential of late.[8,11]

In the global health literature, country versus country depictions earlier seemed to prevail.[12,13] One's experience abroad stimulates interest in particular places to ascertain comparative threads, usually to the United States, or to the predominant Western system models (*e.g.*, national health services, varying national health insurance models, private corporate health sectors, and more popular mixed models). Although the desire to compare can lead to biases in perspectives (and uneven gathered amounts of knowledge and insights), they do offer a chance to contrast systems on specific public health issues (from HIV/AIDS, reproductive health, maternal health care, injury control, responses to COVID) through patterns of utilization and costs of services and the impacts of technology.[10] Overall, generalizations on the design of systems can fall short in determining the vastly different national approaches that have historically evolved, even though nowadays system conversion across the globe are becoming the trend from abroad. These mostly mimic arguably not the best (SIC) policies coming out of privatized practices under American corporate directions.[14,15] It is key to recognize that technologies (medical or informational) are never neutral but depend upon who owns and controls them.[16]

Beyond this, breakthroughs in science and technology (along with varying administrative system adaptations with their attending high overhead costs and infusions of Information Technology advances) are not that easily transferable into other settings. Important learnings as to "proper fit" can aid the pursuit of truly adaptable "best practices", often best learned in the local culture with consumer participation. Concerns for social epidemiology to monitor disease patterns can enable improved strategies for public health activism.[17,18]

In 1991, Milton Roemer's two-volume typology[19] laid out various system structures in light of each societal context to attempt a more comprehensive categorization (*e.g.*, structures, ownership, financing, performance). Now 30-some years later, societal wealth and economies (*i.e.*, industrialized, welfare oriented, entrepreneurial, socialist health systems) have been significantly modified across the world even as new unanticipated public health challenges, like zoonotic disease outbreaks and climatic mishaps, have emerged. Continuing engagement with policymakers and practitioners across national boundaries with sponsorship of technical assistance, popular engagement, and international resources in projects have led to fuller assessments of health care system strengths and weaknesses and the varying dynamics surrounding a country's social epidemiology[16]. Most notably are international non-government organizational (NGOs) efforts in medical missions and other charitable interventions where climatic and political economic crises arise. Also, philanthropic efforts along with several world health relief organizations come to mind with significant efforts to aid lesser developed nations facing catastrophes. Many agendas, however, may be operable in a nation's society during such interventions as health and economic policies are changed.[7,9,20]

Since every society struggles with issues of access, costs, quality, efficiency, and effectiveness, as well as crucial accountability, expanded formal studies of national systems may allow for assessing performance and the varying chosen strategies for the health sector development. Political critiques of policymaker decision making come to bear in this regard, noting divergent perspectives, with the benefit of outside views. While a nation's health care system plays a significant role in alleviating medical care issues, its population's social and environmental conditions, and the distribution of economic resources, are often more so determinants to the health and well-being of people. Additionally, attributes of individuals, families, and communities have impacts on morbidity patterns and subsequent demands for vital health care services. Greater numbers of practitioners and patients in communities must learn "observation-based epidemiology", especially in the civil society groups in their unique social, cultural, and political economic contexts. Here subsystem investigations can be most useful and remain worthwhile to outside aid organizations and funders to be more specific with targeting assistance programs. This can be quite useful in alleviating disparities, which have contentiously deepened between the North and the Southern Hemisphere, and between the richer and poorer within many nations. Such inequities are more readily recognized and discussed in almost every nation where consumer activism has mounted for change in a population's health status.[11,12,20]

Undoubtedly, the field of global health has been chiefly shaped by agencies, major actors, and social movements.[9,11] These players have greatly affected how we all tend to view the international work where many of us participate—and the how and what actually gets done.

International health activists and those at grassroots levels in non-government organizations (NGOs) are beginning to understand that many international health agencies (the United Nations, WHO, Clinton and Gates Foundations and financial institutions such as the World Bank and International Monetary Fund and the G10 nations) hold agendas beyond merely improving health care conditions.[20] Seemingly many ministries of health and NGOs seem more sophisticated through the use of Internet sources, visiting exchanges and their policy involvements; they are often critical of past strategic deficiencies. Nowadays populist demands address, not just devoted economic resources, but question agendas, program assumptions, and configurations while seeking greater participation and much more say in the policy processes.

Since the discipline of public health emerged out of mainstream biomedical and behavioral models, explanations of how and why illnesses occur in populations tend to be narrow often ignoring the broader political, economic, and social structures that have historically shaped national health systems, as well as the content of their medicine and interventions.[21,22] Thus, the individual episodic, disease-focused, physician-centered, technological curative, hospital-based fee-for-service structures that drive their costly and often ineffective services are being challenged, whereas population-based preventive and health promotion approaches would seem to improve the priorities and configuration of various systems--an objective perhaps not easily accomplished in advanced systems, let alone across most of the developing world.

Current tendencies for privatization of systems abroad and the export of Western technologies (pharmaceutical, medical devices, and IT systems) and the export of American dominant ideologies (DRGs, HMO, HEIs, and now "value-based reimbursement") for supposedly improved operations for delivery systems internationally are likely to face resistance as true costs and restrictions on access are uncovered by the consuming publics. A disturbing trend comes from both poorer nations and emerging economies investing in substantial private development for medical tourism.[23,24] This institutes what Andre Gunder Frank[25] identified as exacerbating the underdevelopment of public sectors,[26] which had previously been responsible for the construction of publicly funded hospitals and primary care systems. Private entities serving "customers" from abroad are also targeting middle- and upper-class citizens who can afford to pay, thus leaving the poorly-covered patients and families with less access.[20,27]

Disruptions in health care systems have been notable with the rising social epidemics, most particularly the recent COVID-19 pandemic which dealt an impact all over the world with this spread of an unforeseen and unknown virus. Moreover, expanding middle classes in the Southern Hemisphere presents new pockets of chronic degenerative diseases within aging populations willing to pay for modern medicines. HIV/AIDS, tuberculosis, and malaria still defy eradication and are still deeply burdening numerous nations. Newer scourges (swine and avian flus, cholera, Ebola, MERS, polio, and more resistance strains of infectious agents) beset under resourced national health systems, diverting energies and consuming already scarce medical attention. Such challenges reveal the deficiencies in certain nations, which continue to struggle with their existing disease burdens before these more recent onslaughts.

The dramatic events and changes of late in international health have heightened concerns for improved overall coordinated global strategies with assistance for strengthening certain national health systems, coming directly from the West. Such challenges reveal deficiencies in certain national health systems whose overall economies are facing a growing debt problematic. As Western resources seek to support Ukraine from its current invasion, it is establishing more of an economic limitation to what can continue to be done in world assistance programs. As noted by Villaverde[28], the developing escalating arms race will yield few solutions to the world's multidimensional problems. Current geopolitical tensions between the West with both Russia and China do not provide promise for more cooperative ventures in public health, nor the easing of economic, trade, and political conflicts.

These dramatic events and changes of late in the international health scene have heightened concerns for improved global strategies and assistance for strengthening certain national systems. Given Western resources aimed at supporting the Ukrainian resistance to its invasion and great demands for more military assistance (which crucially supports the American economy during political campaigns!), it is unlikely for continued funding for rebuilding post- war Ukraine without some political compromise forthcoming. Other upfront global priorities for developing nations' debt relief, climate disasters, infrastructure investments and more will compete for assistance from the West.

Understanding the limits and costs of medical science and technology, and the slowness of its advancement across the entire world, broadens concerns for greater responsiveness, especially where disease does not respect geographic, nor class boundaries. The mix of a nation's health services from primary to tertiary services, their availability and the allocation of resources, and its prevention and health promotion successes are increasingly being examined by outside observers. More methodological study of the international health

literature, national documents, news analyses (timely and important with social epidemics), and publication sources can be highly useful to improve system design, priorities, and performance. It is key to view policies, allocated resources, and the organization of programs in their larger historic context.

Building capacity in global health systems usually requires political commitment and available time to adequately respond to ongoing crises with improved technological and managerial prowess. Sustainable development over decades is needed as societies address food shortages, climate change, migrations, and war/ethnic strife that plague them beyond disease conditions, but still embody monumental health implications. Amidst such disruptions, national health systems must be targeted to move toward greater equity in health.[7]

With powerful multinational pharmaceutical companies seeking new markets in emerging economies (the so-called "pharm merging nations"),[29] there are critical needs for instituting pharmacovigilance systems, along with the clinical upgrading of the pharmacy profession all over.[30] As locally established professionals, community pharmacists need to achieve new roles for surveillance to identify and resolve drug-related problems, including adverse drug reactions, contraindications, use of treatment guidelines, drug/herbal interactions, diet advice, and lifestyle modifications.[31] Such clinical activities must be incorporated into university curricula and supported by health policy in the context of functioning health professional teams. Administrative systems (with expanded overhead costs) and health information technology can capture useful wellness and clinical data through active pharmacoepidemiology networks to promote rational use of drugs across the entire global health care system.[32]

Throughout the world there are age-old competing systems to Western medicine, which demand more thorough investigations as to their contributions to human health and well-being and their potential for creating a new integrative medicine.[21] The US PubMed provides greater documentation of increasing studies for bolstering adjunctive additions to complement the practice of regular medicine.

Many people in the Southern Hemisphere rely upon self-care, family and community support, and use natural, alternative, and complementary medicines and their practitioners.[21] Given this social reality, such systems of pharmacovigilance should be designed to accommodate both conventional pharmaceuticals, as well as locally produced entities and the variety of traditional medical practices that people will continue to prefer even when Western medicine entities may become available—but not outlandishly priced out of their means, nor even for the national public sector's affordability to import. Research potentials here abound to discover safer medication and treatment usage among each populace, along with reshaping delivery systems to accommodate various people's needs, behaviors, and desires. This is key in that mixing therapeutic regimens is the social reality, even in countries such as the United States, Great Britain, and Europe.

Newer pharmaceutical entities for serious chronic disease that are produced in the West advance economies tend to be powerful, as well as dangerous entities, when used improperly and absent careful clinical monitoring. Such entities due to their high costs are not often included on essential drug lists of poorer nations. Few sources in the literature have examined the underdevelopment of pharmacy overseas since the Spivey, Wertheimer, and Rucker Publication.[32]

Most recent volumes share the strong influence of the industry due to its financial sponsorship or provide a quite sympathetic perspective to issues.[32] The pharmaceutical industry remains highly complex and often hidden from investigations. Yet this century, it has been in flux with growing outside scrutiny by policymakers and the public due to a plethora of costs and ethical issues.[33] Many firms have been gaining financially and growing in political power across the world, the industry somewhat redeeming itself *via* the speedy COVID vaccine and treatments, which have received huge public subsidies. It remains challenging for most national health systems to effectively work for population health and wellness against the tendencies in this powerful industry.[14]

The world pharmaceutical industry is rapidly changing with firms facing different challenges as they expand into new markets[34] and face growing public scrutiny.[14] The management of pharmaceuticals across the world requires diligent attention, [35] majorly focused on costs, obviously until affordability and quality assurance in pharmacovigilant activities can yield public health improvements. Models for such surveillance and management need development, and then sharing across national boundaries.[36,37] An institution of pharmacoepidemiologic surveillance will be key to greatly aid watching for any new sweeping disease patterns.

DECLARATIONS

DISCLAIMER

This chapter is an extended version of the article published by the same author(s) in the following journal.

Salmon JW (2014) Global Health Systems. J Pharmacovigilance 2: 134. DOI: 10.4172/2329-6887.1000134.

Conflict of interest

J. Warren Salmon is a Co-Editor of the journal. This article was subject to the journal's standard procedures, with peer review handled independently of the editor and his research groups.

REFERENCES

1. Biesma RG, Brugha R, Harmer A, Walsh A, Spicer N, Walt G. The effects of global health initiatives on country health systems: a review of the evidence from HIV/AIDS control. Health Policy Plan 2009; 24: 239-252.
2. World Health Organization Maximizing Positive Synergies Collaborative Group, Samb B, Evans T, Dybul M, Atun R, Moatti JP, Nishtar S, Wright A, Celletti F, Hsu J, Kim JY, Brugha R, Russell A, Etienne C. An assessment of interactions between global health initiatives and country health systems. Lancet 2009; 373: 2137-2169.
3. Salmon JW, Ray M. The Covid-19 pandemic mishaps amid the mendacity of the virus. 2023, in press.
4. Corlette S, Monahan CH. U.S. health insurance coverage and financing. N Engl J Med 2022; 387: 2297-2300.
5. Budrys G. Our unsystematic health care system. 4th ed. London/New York: Rowman & Littlefield; 2016.
6. Donohoe MT. Public health and social justice. San Francisco: Jossey-Bass; 2013.
7. Wallace BC. Toward equity in health: A new global approach to health disparities. New York: Springer; 2008.
8. Garrett L. Betrayal of trust: The collapse of global public health. New York: Hachette Books; 2000.
9. Freudenberg N. At what cost: Modern Capitalism and the future of health. Oxford: Oxford University Press; 2021.
10. Merson MH, Black RE, Mills AJ. Global health: Disease, programs, system, and policies. 4th ed. Jones & Bartlett Learning, LLC; 2020.
11. Birn AE, Pillay Y, Holtz TH. Textbook of international health; Global health in a dynamic world. New York/Oxford: Oxford University Press, 2009.
12. Fried BJ, Gaydos LM. World health systems: Challenges and perspectives. Health Chicago: Administration Press; 2012.
13. Raffel MW. Comparative health systems: Descriptive analyses of fourteen National Health Systems. 2nd ed. University Park, PA: Pennsylvania State University Press; 1985.
14. Salmon, JW, Thompson SL. The corporatization of American health care: The rise of corporate hegemony and the loss of professional autonomy. Springer; 2021.
15. Salmon JW. The corporate transformation of health care: Perspectives and implications. Amityville, New York: Baywood; 1994.
16. McKinlay JB. Issues in the political economy of health care. New York/London: Tavistock; 1985.
17. Cwikel JG. Social epidemiology: Strategies for public health activism. Disabil Rehabil. 2008;30(9):729-30.
18. Salmon JW. Review essay: Cwikel JG. Social epidemiology: Strategies for public health activism. Inter J of Global Social Work Practice. 2008;1.
19. Roemer ML. National health systems of the world (The countries). Oxford: Oxford University Press. 1991;1.
20. Alvarez LS, Salmon JW, Swartzman D. The Colombian health insurance system and its effect on access to health care. Int J Health Serv 2011; 41: 355-370.
21. Salmon JW. Alternative medicine: Popular and policy perspectives. London: Tavistock; 1984.
22. Le Fanu J. Rise and fall of modern medicine. Lancet 1999; 354: 518.
23. Salmon JW. News media widely publicizes health tourism. Am Health Drug Benefits 2008.
24. Salmon JW. Emerging trends in outsourcing health care: Medical tourism. Am Health Drug Benefits. 2008; 1: 27-28.
25. Frank AG. Capitalism and underdevelopment in Latin America. New York: Monthly Review Press; 1967.
26. Whiteis D, Salmon JW. The proprietarization of health care and the underdevelopment of the public sector. Inter J Health Serv. 1987;17(1): 47-64.
27. Salmon JW. Globalization and health/medicine tourism: Implications for pharmacy practice. In Szydlowski S (ed.) Proceedings of the Business and Health Administration Association Annual Meeting, Chicago, IL. 2010 Mar; 187-205.
28. Villaverde JAN. An escalating arms race will not solve the world's multidimensional problems. Equal Times; [cited 2023 Feb 25]. Available from: https://www.equaltimes.org/an-escalating-arms-race-will-not
29. Simon R, Kotler P. Building global biobrands: Taking biotechnology to market. New York: Free Press, 2003.
30. Hepler CD, Strand LM. Opportunity and responsibilities in pharmaceutical care. Am J Hosp Pharm. 1990;47:533-543.
31. International Pharmaceutical Federation. Joint FIP/WHO guidelines on good pharmacy practice: Standards for quality of pharmacy services. WHO Technical Report Series. 2011;961. Available from: https://www.who.int/docs/default-source/medicines/norms-and-standards/guidelines/distribution/trs961-annex8-fipwhoguidelinesgoodpharmacypractice.pdf
32. Spivey RN, Wertheimer AI, Rucker DT. International pharmaceutical industry. New York: Cambridge University Press; 2007.
33. Salmon JW. The pharmaceutical industry confronts the 21st century: Generic competition compulsory licensing and drug access and safety challenges. World Federation of Public Health Associations 12th World Congress, Istanbul, Turkey; 2009.
34. Smith MC. Pharmaceutical marketing in the 21st century. New York: Harworth Press; 1997.
35. Anderson S, Huss, R, Summers, R, Wiedenmayer K. Managing pharmaceuticals in international health. Birkhauser, Basel, Switzerland, 2004. P. 276. Available from: https://researchonline.lshtm.ac.uk/id/eprint/14923
36. Ministerio de Salud Publica. Area Medico-Famaceutica. Centro para el Desarrollo de la Farmacoepidemiologia. Estrategia de la farmacoepidemiologia y de la farmacia principal municipal (FPM). RESUMED. 2000;13:229-231.
37. Cabrera N. Shaping a research agenda to solve health problems: Niviola Cabrera, MD, director of science and technology, ministry of public health, Cuba. Interview by Gail Reed. MEDICC Rev 2010; 12: 8-10.