



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

EDITORIAL

Building a global community of shared future free from poverty

Jay Pan^{a,b}, Chu Chen^{a,c,*}, Yili Yang^b^a HEOA Group, West China School of Public Health and West China Fourth Hospital, Sichuan University, Chengdu, Sichuan 610041, China^b Institute for Healthy Cities and West China Research Center for Rural Health Development, Sichuan University, Chengdu, Sichuan 610041, China^c Health Research Institute, Fujian Medical University, Fuzhou, Fujian 350108, China

ARTICLE INFO

Article history:

Received 24 June 2021

Received in revised form 10 July 2021

Accepted 16 July 2021

Available online 10 August 2021

Poverty alleviation has been highlighted as one of the essential aspects of global development. It has consistently ranked as the top priority among a list of sustainable development goals proposed by the United Nations.¹ The coronavirus disease 2019 (COVID-19) pandemic has created an unprecedentedly challenging climate for the global economy, society, and populations worldwide, which has consequently intensified socioeconomic inequities among different population groups, especially for the poor and vulnerable. In 2020, global extreme poverty rose for the first time over the past 20 years under the impact of COVID-19, which resulted in an additional 120 million people living in poverty (1.90 USD/day), with the total number of impoverished residents expected to reach approximately 150 million by the end of 2021.² Such a changing climate has posed a huge obstacle to efforts to alleviate global poverty in terms of improving the affordability, accessibility, adaptability, and equity of medical services for impoverished populations. Under such circumstances, a sustainable strategy for health poverty alleviation needs to be urgently identified and adopted via global efforts to build a global community with shared future free from poverty.

The link between poverty and health has been verified in previous studies.³⁻⁴ Poverty has been shown to breed ill-health, which, in turn, keeps poor people poor. Multiple factors such as low household income, the high expense of drugs and medical procedures, and lack of health insurance coverage also pose significant obstacles for impoverished populations seeking timely access to medical services. Inability to access such services results in reduced productivity in the labor market due to poverty-induced ill-health, further exacerbating the poverty status in a vicious cycle.³ Conversely, health can also be characterized as a form of wealth. Health has been demonstrated to have considerable instrumental value in reducing poverty. This is because investments made in health promotion for target populations serve as a significant contribu-

tor to boosting residents' productivity at work and ultimately increase household income for residents struggling at the edge of the poverty line.⁵⁻⁶ This is based on relationships of mutual affect that make health-related investments an important tool for alleviating poverty.⁷ Specifically, both medical suppliers and consumers are engaged throughout the process of making investments aimed at health poverty alleviation. Strategies adopted by the supply side typically involve the promotion of medical service capacity of healthcare organizations, drug supplements, and the establishment of health insurance schemes; while the demand side-related tactics mainly involve the improvement of health literacy at the individual level.⁸⁻⁹ Throughout the process of implementing various poverty-alleviation-related projects and policies, remarkable achievements have been made in successfully realizing some project goals. For instance, as a remarkable milestone, during the period 2013–2020, China has successfully achieved a reduction of 98.99 million residents living in extremely poor conditions (1 USD/day), as part of which approximately 40 million people were lifted out of illness-induced poverty via the implementation of the Health Poverty Alleviation Project.¹⁰ However, despite progress made in the aspect of poverty alleviation, lessons should also be learned from cases where previously proposed project goals were not achieved. For example, the Rashtriya Swasthya Bima Yojana health insurance scheme previously implemented across India failed to demonstrate its expected capacity to reduce the burden of out-of-pocket spending on poor households.¹¹ Therefore, effective strategies aimed at facilitating poverty alleviation worldwide need to be constantly explored, along with the evaluation of worldwide projects targeted at poverty alleviation from the perspective of cost-effectiveness.

To emphasize the goal of building a global community with shared future free from poverty by exploring several effective strategies aimed at worldwide poverty alleviation, we have included six articles in this

* Corresponding author: chuchen1988@fjmu.edu.cn.

special issue of *Global Health Journal*, “Global Health Aid for Poverty Alleviation”. These have been contributed by a wide range of authors from different countries in Asia, Europe, Africa, and North America. These papers are expected to provide a glimpse of previously adopted effective approaches as part of global efforts to achieve health poverty alleviation goals. The findings extracted from these studies are expected to show evidence-based implications for the long-term implementation of poverty alleviation-related strategies in a sustainable manner. The six papers are presented in a logical order to facilitate readers’ understanding of multiple aspects related to poverty alleviation. Specifically, three papers demonstrated evidence of effective poverty alleviation-related strategies from the perspective of the following: (1) overcome barriers that create a global drug gap by implementing health technology assessments programs among low- and middle-income countries (LMICs); (2) strengthen medical service capacity among poor resource settings via the adoption of task-sharing approaches; and (3) improve residents’ access to medical services via the penetration of telemedicine technology.^{12–14} One paper shed light on the pivotal role of governments in implementing poverty-alleviation-related strategies.¹⁵ Following this evidence, the great potential of cross-national collaborations in facilitating worldwide poverty alleviation was addressed by another paper.¹⁶ Finally, a study addressed the sustainability issue embedded in implementing poverty-alleviation-related projects from a long-term perspective.¹⁷

1. Improving accessibility of medical services

Ensuring access to medical services is critical for facilitating universal health coverage and minimizing inequity embedded in access to healthcare among impoverished populations, which significantly contributes to health promotion by facilitating timely access to medical services for the poor.^{18–19} Accessibility of medical services mainly comprises affordability and the spatial accessibility of healthcare.^{20–21} Most nations choose to improve the affordability of medical services through the establishment of social, medical insurance schemes and the provision of medical aids.⁸ The spatial accessibility of healthcare can be enhanced by improving the healthcare workforce, expanding road network construction, and adopting advanced information technologies.^{18–22} In terms of evaluating residents’ access to medical services, affordability is typically measured by out-of-pocket health expenditures; the spatial accessibility of healthcare is commonly accessed via the adoption of a shortest-path analysis and the enhanced two-step floating catchment area method.^{18–20} As part of this thematic issue, three articles attempted to detect potential effective strategies for improving the accessibility of medical services. Specifically, one paper entitled “Can health technology assessments assist the global campaign against poverty?” was contributed by Debra Renee Winberg, Ye Lu, Yingyao Chen and Lizheng Shi. It focused the role of health technology assessment as a meaningful approach for closing the global drug gap by increasing access to affordable drugs for residents in LMICs.¹² As described by the authors, the implementation of HTAs has demonstrated significant potential in facilitating populational health promotion at a lower cost to individuals through increased access to affordable essential medicines. This specifically involves the enhancement of multiple aspects, including the procurement, affordability, obtainability of drugs, and the capacity of LMICs governments throughout the process. Another paper contributed by Klaus W. Lange proposed task sharing as an effective approach for improving residents’ access to healthcare providers, especially among resource-poor countries.¹³ Striving to find a solution for the lack of mental health specialists in impoverished regions, this paper provided an overview of training non-specialist health workers as an effective strategy for improving residents’ access to psychotherapy in impoverished regions under the supervision of mental health experts. From the perspective of advanced information technology, a paper led by Tosin Yinka Akintunde provided an overview of utilizing telemedicine as an effective approach for improving residents’ access to medical services

among impoverished regions, thus further facilitating poverty alleviation by adopting advanced technology.¹⁴

2. Strengthening governmental roles in the process of poverty alleviation

The pivotal role of governmental leadership in guiding poverty-eradication-related work cannot be ignored in that rigorous organization, leadership, and implementation are needed throughout this kind of procedure.¹⁰ In 2020, China has made significant contribution to the global poverty alleviation endeavor. This remarkable milestone can be attributed to the significant role of leadership and organization at the governmental level. Specifically, China has established a poverty eradication management network with the central government acting as a coordinator, provincial governments taking overall responsibility, and city and county governments overseeing implementation. The network covers all poor areas, and officials are sent to villages to help every needy household.¹⁰ Further, Klaus W. Lange, the author attempted to address the exceptionally essential role of social factors in affecting populational health outcomes in addition to biological factors through providing an introduction to Rudolf Virchow (1821–1902), who is renowned as the “father” of the enduring concept of cellular pathology.¹⁵ Rudolf Virchow theories also highlighted the essential role of government leadership in facilitating health promotion among impoverished population groups via the adoption of political measures, proving the significant value of referring to Virchow’s theories as guidelines for conducting poverty-alleviation-related tasks in the contemporary era.

3. Reinforcing cross-national collaborations and communications

AIDS, malaria, and tuberculosis have been ranked as the top three poverty-related diseases among LMICs,²³ which are proven to be curable and preventable by the intervention of modern medicine.²⁴ From a global perspective, effective control of these poverty-related health conditions calls for cross-national collaborations and communication aimed at facilitating joint efforts toward global poverty alleviation for mutual benefit on a win-win basis. It is inspiring that several cross-national projects targeted at lifting people out of poverty have been implemented worldwide. For example, a disease control priorities network, funded in 2010 by the Bill & Melinda Gates Foundation, demonstrated considerable potential in providing evidence-based implications to create a list of priority diseases for intervention among LMICs based on the analysis of multiple aspects, including cost and cost-effectiveness, the extent of burden to be addressed, and implementation feasibility.²⁵ Likewise, one paper by a group of authors led by Qi Wang is entitled “China’s foreign aid for global poverty alleviation: artemisinin-based combination therapies against Malaria in Togo”.¹⁶ It introduces the China-Togo Cooperative Artemisinin Malaria Control Demonstration Project to emphasize the substantial achievements made in eliminating regional malaria cases by adopting an artemisinin compound as an effective strategy for global poverty alleviation. Therefore, remarkable achievements demonstrated across these cross-national projects highlight the necessity of reinforcing international joint efforts toward the goal of global poverty alleviation.

4. Addressing sustainability issues embedded in health poverty alleviation strategies

In the current global context, where a massive labor force, as well as both substantial and financial resources, has been utilized to achieve poverty alleviation goals, the sustainability issue embedded in implementing poverty alleviation-related strategies should be persistently addressed. This is because, based on empirical evidence collected from common practices, it is frequently reported that targeted population groups eventually returned to poverty or ended up with even worse impoverished status after the implementation of certain poverty alleviation projects, although some project goals seem to have been suc-

cessfully achieved based on project end-line evaluations.²⁶ In a study conducted by Qin Xiang, researchers examined the health poverty vulnerability index of elderly households in rural areas of central and western regions of China, based on which samples were classified based on the contribution of each influencing factor.¹⁷ This study emphasized the necessity of adopting different strategies as interventions tailored for temporary, potential, and persistent impoverished households to facilitate the sustainability of poverty-alleviation-related projects in the long term. Although China has reached a remarkable milestone by achieving the goal of eradicating extreme poverty by the end of 2020, it continues to strive to find a solution for tackling sustainability issues embedded in the implementation of poverty alleviation-related policies from a long-term perspective. At the global level, evaluations should be constantly conducted on poverty alleviation-related strategies, along with perspective studies focused on health poverty alleviation. Additionally, solutions aimed at addressing sustainability issues embedded in the implementation of poverty-alleviation-related projects should be persistently explored in a proactive manner. Meanwhile, the pivotal role of primary healthcare should be addressed as a gatekeeper in reducing poverty due to illness by minimizing the incidence of disease and mitigating negative health outcomes induced by diseases. Hospitalization for ambulatory care-sensitive conditions is expected to be reduced by improving the quality of primary healthcare.

Global poverty alleviation remains a difficult task to perform constantly from a long-term perspective; notably, comparative poverty remains a worldwide issue even after the complete eradication of extreme poverty. Numerous measures need to be taken to improve equity in terms of healthcare worldwide. Specifically, scholars should raise awareness for impoverished populations to facilitate more meaningful research aimed at poverty alleviation, especially for resource-limited settings, where improving healthcare equity and enhancing the effectiveness of poverty-alleviation-related strategies are exceptionally critical. Meanwhile, an increased number of high-quality papers addressing poverty alleviation issues are expected to be published by future academic journals to facilitate the distribution and effective utilization of research findings in this field. At the governmental level, financial support needs to be consistently provided for conducting poverty-alleviation-related studies. Evidence-based implications need to be adopted to inform policy-making procedures as an essential approach for facilitating the implementation of poverty alleviation-related strategies effectively. Additionally, society, in general, should have an increased awareness of the importance of healthcare as the primary source of support, as well as surveillance for ongoing projects targeted at lifting residents out of an impoverished status. Meanwhile, the targeted population groups living beneath poverty lines should also be encouraged to participate in poverty-alleviation-related projects proactively to facilitate the effective implementation of poverty alleviation-related strategies. In summary, health poverty alleviation is a long-term goal to be achieved through the joint efforts of nations worldwide. To this end, evidence-based implications provided by relevant studies need to be effectively distributed and practically adopted, thus ultimately facilitating the establishment of a global community with shared future free from poverty.

CRedit author statement

Jay Pan: Conceptualization, Writing—Original draft, Writing—Review & Editing, Visualization, Supervision. **Chu Chen:** Writing—Review & Editing, Visualization, Supervision. **Yili Yang:** Writing—Review & Editing.

Competing interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

1. Sustainable development goals. United Nations Foundation website. https://unfoundation.org/what-we-do/issues/sustainable-development-goals/?gclid=Cj0KCQjw5auGBhDEARsAFyNm9Eo6_GQ2s1TvqrGa8BrOpTM_ADAVwNBbnJkuqispmGXy r7ogQWEh4aApTheALw_wcB. Accessed June 21, 2021.
2. Poverty overview. The World Bank website. <https://www.worldbank.org/en/topic/poverty/overview>. Accessed June 21, 2021.
3. Wagstaff A. Poverty and health sector inequalities. *Bull World Health Organ*. 2002;80(2):97-105.
4. Alam K, Mahal A. Economic impacts of health shocks on households in low and middle income countries: a review of the literature. *Global Health*. 2014;10:21. doi:10.1186/1744-8603-10-21.
5. Fogel RW. Economic growth, population theory, and physiology: the bearing of long-term processes on the making of economic policy. *Am Econ Rev*. 1994;84(3):369-395.
6. Health, economic growth and poverty reduction : the report of Working Group I of the Commission on Macroeconomics and Health. World Health Journal website. <https://apps.who.int/iris/handle/10665/42492>. Accessed June 21, 2021.
7. Bloom D, Canning D. The health and poverty of nations: from theory to practice. *J Hum Dev*. 2003;4(1):47-71. doi:10.1080/1464988032000051487.
8. Chen C, Pan J. The effect of the health poverty alleviation project on financial risk protection for rural residents: evidence from Chishui City, China. *Int J Equity Health*. 2019;18(1):79. doi:10.1186/s12939-019-0982-6.
9. Vilcu I, Probst L, Dorjsuren B, Mathauer I. Subsidized health insurance coverage of people in the informal sector and vulnerable population groups: trends in institutional design in Asia. *Int J Equity Health*. 2016;15(1):165. doi:10.1186/s12939-016-0436-3.
10. The State Council Information Office of the People's Republic of China. *Poverty Alleviation: China's Experience and Contribution*. Beijing: Foreign Languages Press Co. Ltd.; 2021. http://www.xinhuanet.com/english/2021-04/06/c_139860414.htm. Accessed June 21, 2021.
11. Karan A, Yip W, Mahal A. Extending health insurance to the poor in India: An impact evaluation of Rashtriya Swasthya Bima Yojana on out of pocket spending for healthcare. *Soc Sci Med*. 2017;181:83-92. doi:10.1016/j.socscimed.2017.03.053.
12. Winberga DR, Lu Y, Chen YY, Shi LZ. Can health technology assessment assist the global campaign against poverty? *Glob Health J*. 2021;5(3):116-119.
13. Lange KW. Task sharing in psychotherapy as a viable global mental health approach in resource-poor countries and also in high-resource settings. *Glob Health J*. 2021;5(3):120-127.
14. Akintunde TY, Akintunde OD, Musa TH, et al. Expanding telemedicine to reduce the burden on the healthcare systems and poverty in Africa for a post-coronavirus disease 2019 (COVID-19) pandemic reformation. *Glob Health J*. 2021;5(3):128-134.
15. Lange KW. Rudolf Virchow, poverty and global health: from "politics as medicine on a grand scale" to "health in all policies". *Glob Health J*. 2021;5(3):149-154.
16. Wang Q, Yu C, Zhang H, Zheng S, Song J, Deng C. China's foreign aid for global poverty alleviation: artemisinin-based combination therapies against Malaria in Togo. *Glob Health J*. 2021;5(3):144-148.
17. Xiang Q, Yan C, Ma Y, Liao H, Wang J. Classification and influencing factors of rural elderly's vulnerability to health-related poverty in central and western regions of China. *Glob Health J*. 2021;5(3):135-143.
18. Wang X, Yang H, Duan Z, Pan J. Spatial accessibility of primary health care in China: a case study in Sichuan Province. *Soc Sci Med*. 2018;209:14-24. doi:10.1016/j.socscimed.2018.05.023.
19. Shan L, Wu Q, Liu C, et al. Perceived challenges to achieving universal health coverage: a cross-sectional survey of social health insurance managers/administrators in China. *BMJ Open*. 2017;7(5):e014425. doi:10.1136/bmjopen-2016-014425.
20. Pan J, Liu H, Wang X, Xie H, Delamater PL. Assessing the spatial accessibility of hospital care in Sichuan Province, China. *Geospat Health*. 2015;10(2):384. doi:10.4081/gh.2015.384.
21. Khan AA. An integrated approach to measuring potential spatial access to health care services. *Socioecon Plann Sci*. 1992;26(4):275-287. doi:10.1016/0038-0121(92)90004-o.
22. Bashshur RL, Reardon TG, Shannon GW. Telemedicine: a new health care delivery system. *Annu Rev Public Health*. 2000;21:613-637. doi:10.1146/annurev.publhealth.21.1.613.
23. Singh AR, Singh SA. Diseases of poverty and lifestyle, well-being and human development. *Mens Sana Monogr*. 2008;6(1):187-225. doi:10.4103/0973-1229.40567.
24. Diseases of poverty and the 10/90 gap. World Health Organization website. <https://www.who.int/intellectualproperty/submissions/InternationalPolicyNetwork.pdf>. Accessed June 21, 2021.
25. About the project. Disease control priorities website. <http://www.dcp-3.org/about-project>. Accessed June 21, 2021.
26. Up in smoke: the influence of household behavior on the long-run impact of improved cooking stoves. Digital Access to Scholarship at Harvard website. <https://dash.harvard.edu/handle/1/8694934>. Accessed June 21, 2021.

Edited by Yanjie Zhang