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# Policy entrepreneurs are integral in efforts to curb antimicrobial resistance in low and middle income countries

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## Introduction

Antimicrobial resistance (AMR) is considered a global health challenge which results in an estimated 700,000 deaths annually (1). A failure to curb antimicrobial resistance (AMR) could result in a global catastrophe of 10 million deaths annually by 2050 (2). In low and middle-income countries (LMICs) the problem posed by AMR is having devastating consequences as AMR accounts for about 45% of deaths in Africa and South-East Asia. Also multidrug resistant (MDR) organisms such as extended spectrum beta lactamase producing *Klebsiella pneumoniae* have been associated with increased mortality in Africa and other parts of the world e.g., South East Asia, the Eastern Mediterranean and the Western Pacific (3). In addition an unmitigated rise in AMR and a paucity in research and development of new antimicrobials puts the world in grave danger of a post antibiotic era. In such an era, there would be an inability to treat minor infections due to a lack of effective antibiotics (3). Furthermore, the impact of a post-antibiotic era would be particularly severe in LMICs with high burdens of infectious diseases and weak health systems (3). It is therefore necessary to curb antimicrobial resistance in LMICs. Sadly, governments in many LMICs exhibit low political will to curb antimicrobial resistance (4–6). Clearly some LMICs have developed National Action Plans (NAPs) on AMR (7). However, low political will results in poor implementation of these NAPs (5, 8–10). Low political will has also resulted in the suboptimal performance of other approaches which are fundamental in the fight against AMR. For example, many LMICs lack: adequate diagnostic microbiology services (11, 12); water sanitation and hygiene facilities (13–16); effective childhood vaccination services (17–19); access to effective antibiotics (20); infection prevention and control protocols in health care facilities (13–15); efficient surveillance structures (21–23); and reliable local data on antibiotic consumption and AMR (21–23). Certainly, other reasons (such as funding, lack of technical expertise, lack of multisectoral coordination, etc.) have been attributed to the poor efforts to curb AMR in LMICs (8–10). However, the low political will of LMIC governments is considered the most important factor hindering efforts to curb AMR (5, 6, 8). Political will is a term which refers to “the commitment of political leaders and bureaucrats to undertake actions to achieve a set of objectives and to sustain the costs of those actions over time” (24). The presence of political will creates a suitable environment to develop effective and sustainable regulatory frameworks to curb AMR (5, 6, 25, 26). Also when political will is present it fosters engagement and mutually beneficial partnerships between LMIC governments and the private sector (27–30). Such

partnerships allow LMIC governments to leverage on key strengths of the private sector (e.g., technical expertise, capacity building, infrastructure, and financing) to curb AMR (31–40). It is therefore necessary to build political will to curb AMR in LMICs (5, 6, 8–10, 26, 29, 30, 40, 41). However, the complex socio-cultural, socio-economic and political dynamics in LMICs may make the process of building political will daunting and complex (42, 43). In this regard, studies have shown that individuals, often referred to as “policy entrepreneurs,” can be pivotal in building political will to implement health reforms (44–46). Therefore, policy entrepreneurs may play a pivotal role in tackling AMR in LMICs (6). The focus of this paper is to draw attention to the need to engage policy entrepreneurs in efforts to curb the menace of AMR in LMICs.

## Defining policy entrepreneurs

Policy entrepreneurs are individuals who actively engage (and collaborate) in efforts to promote reforms or innovations in national policy and decision making (45–48). Mintrom (46) describes policy entrepreneurs as “energetic actors who engage in collaborative efforts in and around government to promote policy innovations or health reforms.” Essentially policy entrepreneurs are skilled at introducing and promoting their ideas in many different fora (45–48). Also they invest time and energy to increase the chances for an idea to be placed on the decision agenda of the government (45–48). Policy entrepreneurs may be found anywhere in the sphere of policy and decision making (48). They may or may not be employed by the government or may hold elected appointed positions (48). They may be academics or individuals who work for advocacy groups or research institutions (48). Their willingness to commit and invest their resources (e.g., time, energy, reputation, finances, etc.) in the expectation of a future return is what clearly distinguishes them from other individuals involved in policy and decision making (48). They might receive that anticipated future return in the form of professional advancement, personal gratification, or the implementation of policies or regulations they are happy with (48).

In several LMICs, policy entrepreneurs have played useful roles in initiating and implementing health reforms (49–56). For example in Nigeria a health Minister successfully championed the implementation of Primary Health Care (49). Similarly in Uruguay, in 2007, the President supported by some politicians in government spearheaded health reforms which resulted in a National Integrated Health System (Sistema Nacional Integrado de Salud) designed to provide comprehensive and equitable health coverage for Uruguayans (53, 54). There are also examples of individuals outside government, civil society groups, and other non-governmental organizations which have been instrumental in building political will on burning issues (55, 56). For example in Kenya, a network of Civil Society Organizations used a combination of litigation and advocacy to ensure the revision of the 2008 Counterfeit Act, which had prohibited people living with HIV from accessing affordable generic drugs (55). Similarly in Indonesia, disability groups played a key role in efforts to pass legislation to protect the rights of people with disabilities

(56). Also in China, a private enterprise served as a policy entrepreneur in the adoption of mobile healthcare payment (57). The success achieved by policy entrepreneurs in enabling these health reforms can also be adapted in efforts to curb AMR in LMICs (58).

## Policy entrepreneurs have a role to play in curbing antimicrobial resistance in low and middle income countries

The battle against AMR may be slow and frustrating if LMIC governments persistently display little or no political will to enact and enforce laws to curb antimicrobial resistance (58). However, a lot more can be achieved with the inclusion of policy entrepreneurs in efforts to curb AMR in LMICs (59). Several reasons support the preceding statement. Firstly, policy entrepreneurs understand the political dynamics involved in implementing health reforms (60). Therefore, the involvement of policy entrepreneurs in the reform process utilizes their political sagacity, enthusiasm and drive and provides the required momentum for policy adoption and diffusion (60). In addition, policy entrepreneurs can establish collaborative networks involving government, influential individuals, non-governmental institutions (who are involved in efforts to curb AMR in LMICs) and global organizations (60). Such networks can provide the required momentum to implement policies to curb AMR in LMICs (60).

Also, policy entrepreneurs are adept at creating or taking advantage of rare opportunities referred to as “policy windows” (48). Policy windows are described as “exceptional, fleeting periods of time when there is a greater likelihood of initiating policy change than usual” (61). For example the emergence of a Head of State or President with a passion to fight AMR is a significant policy window to curb the menace of AMR in a country (48). However, policy entrepreneurs are not expected to passively wait for policy windows to open or occur (62, 63). They can also proactively engage in activities which can lead to the creation or opening of policy windows regarding the issues of inappropriate antibiotic use and AMR (62, 63). Examples of these activities include: drawing attention to the dangers of inappropriate antibiotic use and AMR (e.g., through social media); building or strengthening coalitions with key stakeholders (e.g., influential politicians or citizens, research and policy organizations, etc.); and educating or increasing the knowledge of decision (or policy-makers) about inappropriate antibiotic use and AMR (58).

## Conclusion

Policy entrepreneurs have been instrumental in achieving health reforms in LMICs (49–56). They possess a keen understanding of the political process and are instrumental in building political will to implement health reforms (45–48, 60). Notably, a paucity of political will is a major factor impeding

the fight against AMR in many LMICs (5, 8–10). However, the involvement of policy entrepreneurs will be instrumental in building political will to tackle AMR in LMICs (58–60).

## Author contributions

IO: Conceptualization, Formal analysis, Methodology, Supervision, Validation, Visualization, Writing—original draft, Writing—review & editing.

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## References

- O'Neill J. *Antimicrobial Resistance: Tackling a Crisis for the Health and Wealth of Nations. The Review on Antibiotic Resistance*. (2014). Available online at: [https://amr-review.org/sites/default/files/AMR%20Review%20Paper%20-%20Tackling%20a%20crisis%20for%20the%20health%20and%20wealth%20of%20nations\\_1.pdf](https://amr-review.org/sites/default/files/AMR%20Review%20Paper%20-%20Tackling%20a%20crisis%20for%20the%20health%20and%20wealth%20of%20nations_1.pdf) (accessed January 24, 2024).
- Jonas OB, Irwin A, Berthe FCJ, Le Gall FG, Marquez PV. *Drug-Resistant Infections: a Threat to Our Economic Future. Vol. 2: Final Report (English). HNP/Agriculture Global Antimicrobial Resistance Initiative*. Washington, DC: World Bank Group (2017). Available online at: <http://documents.worldbank.org/curated/en/323311493396993758/final-report> (accessed January 24, 2024).
- World Health Organization. *Antimicrobial Resistance: Global Report on Surveillance*. World Health Organization (2014). Available online at: <https://apps.who.int/iris/handle/10665/112642> (accessed January 24, 2024).
- Pokharel S, Raut S, Adhikari B. Tackling antimicrobial resistance in low-income and middle-income countries. *Br Med J Glob Heal*. (2019) 4:4–6. doi: 10.1136/bmjgh-2019-002104
- Aruhomukama D. Extending political will into action in African LMICs: abating global antimicrobial resistance. *Lancet Microbe*. (2022) 3:e327–8. doi: 10.1016/S2666-5247(22)00063-5
- Otaigbe II, Elikwu CJ. Drivers of inappropriate antibiotic use in low- and middle-income countries. *JAC Antimicrob Resist*. (2023) 5:dlad062. doi: 10.1093/jacamr/dlad062
- World Health Organization. *Library of AMR National Action Plans*. Available online at: <https://www.who.int/teams/surveillance-prevention-control-AMR/national-action-plan-monitoring-evaluation/library-of-national-action-plans> (accessed January 24, 2024).
- Mpundu M. *Moving From Paper to Action—the Status of National AMR Action Plans in African Countries*. Geneva: GARDP (2020).
- World Health Organization. *Interagency Coordination Group on Antimicrobial Resistance. Antimicrobial Resistance: National Action Plans*. Geneva: World Health Organization (2018). Available online at: <https://www.who.int/docs/default-source/antimicrobial-resistance/amr-gcp-tjs/iacg-amr-national-action-plans-110618.pdf> (accessed January 24, 2024).
- World Health Organization. *Turning Plans Into Action for Antimicrobial Resistance (AMR). Working Paper 2.0: Implementation and Coordination*. Geneva: World Health Organization (2019). Available online at: [https://cdn.who.int/media/docs/default-source/antimicrobial-resistance/amr-spc-npm/nap-working-papers/amr-turning-plans-into-action-working-paper-2-march-2019-en.pdf?sfvrsn=a94f60a7\\_1](https://cdn.who.int/media/docs/default-source/antimicrobial-resistance/amr-spc-npm/nap-working-papers/amr-turning-plans-into-action-working-paper-2-march-2019-en.pdf?sfvrsn=a94f60a7_1) (accessed January 24, 2024).
- Nkengasong JN, Yao K, Onyebujoh P. Laboratory medicine in low-income and middle-income countries: progress and challenges. *Lancet*. (2018) 391:1873–5. doi: 10.1016/S0140-6736(18)30308-8
- Jacobs J, Hardy L, Semret M, Lunguya O, Phe T, Affolabi D, et al. Diagnostic bacteriology in district hospitals in sub-Saharan Africa: at the forefront of the containment of antimicrobial resistance. *Front Med*. (2019) 6:205. doi: 10.3389/fmed.2019.00205
- O'Neill J. *Infection Prevention, Control and Surveillance: Limiting the Development and Spread of Drug Resistance. The Review on Antimicrobial Resistance*. (2016). Available online at: [https://amr-review.org/sites/default/files/Health%20infrastructure%20and%20surveillance%20final%20version\\_LR\\_NO%20CROPS.pdf](https://amr-review.org/sites/default/files/Health%20infrastructure%20and%20surveillance%20final%20version_LR_NO%20CROPS.pdf) (accessed January 24, 2024).
- World Health Organization. *Global Report on Infection Prevention and Control*. WHO (2022). Available online at: <https://apps.who.int/iris/rest/bitstreams/1425056/retrieve> (accessed January 24, 2024).
- Macintyre A, Wilson-Jones M, Wvellenan Y. *Prevention First: Tackling AMR Through Water, Sanitation and Hygiene*. One Health. AMR Control (2017). Available online at: <http://resistancecontrol.info/2017/prevention-first-tackling-amr-through-water-sanitation-and-hygiene/> (accessed January 24, 2024).
- World Economic Forum, Swiss Agency for Development and Cooperation. *Antimicrobial Resistance and Water: The Risks and Costs for Economies and Societies*. World Economic Forum (2021). Available online at: [https://www3.weforum.org/docs/WEF\\_Antimicrobial\\_Resistance\\_and\\_Water\\_2021.pdf](https://www3.weforum.org/docs/WEF_Antimicrobial_Resistance_and_Water_2021.pdf) (accessed January 24, 2024).
- WHO Regional Office for Africa. *Immunization*. WHO (2021). Available online at: <https://www.afro.who.int/health-topics/immunization> (accessed January 24, 2024).
- UNICEF. *1 in 4 children in Latin America and the Caribbean Are Exposed to Diseases That Can Be Prevented With Vaccines*. (2022). Available online at: <https://www.unicef.org/press-releases/1-4-children-latin-america-and-caribbean-are-exposed-diseases-can-be-prevented> (accessed January 24, 2024).
- Otaigbe II. A narrative review of strategies to improve childhood vaccination coverage in Low- and Middle-Income Countries. *BUMJ*. (2023) 6:202–14. doi: 10.38029/bawcockuniv.med.j.v6i2.323
- Frost I, Craig J, Joshi J, Faure K, Laxminarayan R. *Access Barriers to Antibiotics. Center for Disease Dynamics, Economics & Policy*. Washington, DC: Center for Disease Dynamics, Economics & Policy (2019). Available online at: [https://onehealthtrust.org/wp-content/uploads/2019/04/AccessBarrierstoAntibiotics\\_CDDEP\\_FINAL.pdf](https://onehealthtrust.org/wp-content/uploads/2019/04/AccessBarrierstoAntibiotics_CDDEP_FINAL.pdf) (accessed January 24, 2024).
- Gandra S, Alvarez-Uria G, Turner P, Joshi J, Limmathurotsakul D, van Doorn HR. Antimicrobial resistance surveillance in low- and middle-income countries: progress and challenges in eight South Asian and Southeast Asian Countries. *Clin Microbiol Rev*. (2020) 33:e00048–19. doi: 10.1128/CMR.00048-19
- Iskandar K, Molinier L, Hallit S, Hardcastle TC, Haque M, Lugova H, et al. Surveillance of antimicrobial resistance in low- and middle-income countries: a scattered picture. *Antimicrob Resist Infect Control*. (2021) 10:63. doi: 10.1186/s13756-021-00931-w
- Mapping Antimicrobial Resistance and Antimicrobial Use Partnership. *Incomplete Antimicrobial Resistance (AMR) Data in Africa: the Crises Within the Crises* (2022). Available online at: [https://aslm.org/wp-content/uploads/2022/09/ASLM\\_MAAP-Policy-Brief\\_Embargoed-until-15-Sept-6AM-GMT.pdf?x26552](https://aslm.org/wp-content/uploads/2022/09/ASLM_MAAP-Policy-Brief_Embargoed-until-15-Sept-6AM-GMT.pdf?x26552) (accessed January 24, 2024).
- Brinkerhoff DW. Assessing political will for anti-corruption efforts: an analytic framework. *Public Adm Dev*. (2000) 20:239–52. doi: 10.1002/1099-162X(200008)20:3<239::AID-PAD138>3.0.CO;2-3
- Frumence G, Mboera LEG, Katala BZ, Sindato C, Kimera S, Durrance-Bagale A, et al. Policy actors and human and animal health practitioners' perceptions of

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- antimicrobial use and resistance in Tanzania: a qualitative study. *J Glob Antimicrob Resist.* (2021) 25:40–7. doi: 10.1016/j.jgar.2021.02.027
26. ReAct Group. *UN High-Level Dialogue on AMR: Political Will and Investments Needed.* (2021). ReAct Group. Available online at: <https://www.reactgroup.org/news-and-views/news-and-opinions/year-2021/un-high-level-dialogue-on-amr-political-will-and-investments-needed/> (accessed January 24, 2024).
27. United Nations Department of Economic and Social Affairs (Division for Public Economics and Public Administration). *Building Partnerships for Good Governance. The Spirit and the Reality of South-South Cooperation.* United Nations (2000). Available online at: [https://digitallibrary.un.org/record/415266/files/2000\\_Building\\_Partnerships\\_for\\_Good\\_Governance\\_the\\_Spirit\\_and\\_the\\_Reality\\_of\\_South-South\\_Cooperation.pdf](https://digitallibrary.un.org/record/415266/files/2000_Building_Partnerships_for_Good_Governance_the_Spirit_and_the_Reality_of_South-South_Cooperation.pdf) (accessed January 24, 2024).
28. United Nations Commission on Life-Saving Commodities, *Technical Reference Team on Private Sector Engagement.* United Nations (2014). Available online at: [https://publications.jsi.com/JSIInternet/Inc/Common/\\_download\\_pub.cfm?id=15176&lid=3](https://publications.jsi.com/JSIInternet/Inc/Common/_download_pub.cfm?id=15176&lid=3) (accessed January 24, 2024).
29. Otaigbe II. Achieving universal health coverage in low- and middle-income countries through digital antimicrobial stewardship. *Front Digit Health.* (2023) 5:1–6. doi: 10.3389/fdth.2023.1298861
30. Global Leaders Group on Antimicrobial Resistance. *Priorities of the Global Leaders Group on AMR (Rolling Action Plan). GLG on AMR.* (2022). Available online at: [https://www.amrleaders.org/docs/librariesprovider20/default-document-library/glg-action-plan-jan2022-14dec.pdf?sfvrsn=369bf43d\\_3&download=true](https://www.amrleaders.org/docs/librariesprovider20/default-document-library/glg-action-plan-jan2022-14dec.pdf?sfvrsn=369bf43d_3&download=true) (accessed January 24, 2024).
31. United Nations Economic Commission for Africa (UNECA). *Healthcare and Economic Growth in Africa.* UNECA (2019). Available online at: <https://repository.uneca.org/bitstream/handle/10855/43118/b11955521.pdf?sequence=4&isAllowed=y> (accessed January 24, 2024).
32. Omilola B, Sanogo NA. Business and investment opportunities in healthcare in Africa. *Public Heal Open J.* (2020) 5:11–3. doi: 10.17140/PHOJ-5-139
33. Mason N, Matoso M, Smith W. *Private Sector and Water Supply, Sanitation and Hygiene.* (2015). Available online at: <https://odi.org/en/publications/private-sector-and-water-supply-sanitation-and-hygiene/> (accessed January 24, 2024).
34. Hermesen ED, Jenkins R, Vlaev I, Iley S, Rajgopal T, Sackier JM, et al. The role of the private sector in advancing antimicrobial stewardship: recommendations from the global chief medical officers' network. *Popul Health Manag.* (2021) 24:231–40. doi: 10.1089/pop.2020.0027
35. International Finance Corporation (IFC). *The Business of Health in Africa: Partnering with the Private Sector to Improve People's Lives.* IFC (2008). Available online at: <https://documents1.worldbank.org/curated/en/878891468002994639/pdf/441430WP0ENGL1an10110200801PUBLIC1.pdf> (accessed January 24, 2024).
36. Barillas MA de, Gómez FJ. *Creating New Models Innovative Public-Private Partnerships for Inclusive Development in Latin America.* World Economic Forum (2014). Available online at: [https://www3.weforum.org/docs/GAC/2014/WEF\\_GAC\\_LatinAmerica\\_InnovativePublicPrivatePartnerships\\_Report\\_2014.pdf](https://www3.weforum.org/docs/GAC/2014/WEF_GAC_LatinAmerica_InnovativePublicPrivatePartnerships_Report_2014.pdf) (accessed January 24, 2024).
37. World Organization for Animal Health. *The OIE PPP Handbook: Guidelines for Public-Private Partnerships in the Veterinary Domain.* OIE World Organization for Animal Health (2019). Available online at: <https://www.woah.org/app/uploads/2021/03/oie-ppp-handbook-20190419-enint-bd.pdf> (accessed January 24, 2024).
38. Singh S, Charani E, Devi S, Sharma A, Edathadathil F, Kumar A, et al. A road-map for addressing antimicrobial resistance in low- and middle-income countries: lessons learnt from the public private participation and co-designed antimicrobial stewardship programme in the State of Kerala, India. *Antimicrob Resist Infect Control.* (2021) 10:2–9. doi: 10.1186/s13756-020-00873-9
39. Organization for Economic Cooperation and Development, World Health Organization, Food and Agricultural Organization, World Organization for Animal Health. *Tackling Antimicrobial Resistance Ensuring Sustainable R&D.* OECD, WHO, FAO, OIE (2017). Available online at: <https://www.oecd.org/g20/summits/hamburg/Tackling-Antimicrobial-Resistance-Ensuring-Sustainable-RD.pdf> (accessed January 24, 2024).
40. Bhatia R, Katoch VM, Inoue H. Creating political commitment for antimicrobial resistance in developing countries. *Indian J Med Res.* (2019) 149:83–6. doi: 10.4103/ijmr.IJMR\_1980\_17
41. Rogers Van Katwyk S, Danik MÉ, Pantis I, Pantis I, Smith R, Rottingen JA, et al. Developing an approach to assessing the political feasibility of global collective action and an international agreement on antimicrobial resistance. *Glob Health Res Policy.* (2016) 1:20. doi: 10.1186/s41256-016-0020-9
42. Kukutschka RMB. *Building Political Will Topic Guide. Anti-Corruption Helpdesk, Transparency International.* (2014). Available online at: [https://knowledgehub.transparency.org/assets/uploads/kproducts/Topic\\_Guide-\\_Political\\_Will.pdf](https://knowledgehub.transparency.org/assets/uploads/kproducts/Topic_Guide-_Political_Will.pdf) (accessed January 24, 2024).
43. Exworthy M. Policy to tackle the social determinants of health: using conceptual models to understand the policy process. *Health Policy Plan.* (2008) 23:318–27. doi: 10.1093/heapol/czn022
44. Cohen N, Horev T. Policy entrepreneurship and policy networks in healthcare systems – the case of Israel's pediatric dentistry reform. *Isr J Health Policy Res.* (2017) 6:1–10. doi: 10.1186/s13584-017-0146-3
45. Mintrom M. *Policy Entrepreneurs and Dynamic Change.* Cambridge: Cambridge University Press (2019).
46. Mintrom M. So you want to be a policy entrepreneur. *Policy Design Practice.* (2019) 2:307–23. doi: 10.1080/25741292.2019.1675989
47. Roberts NC, King PJ. Policy entrepreneurs: their activity structure and function in the policy process. *J Publ Admin Res Theory.* (1991) 1:147–75.
48. Kingdon J. *Agendas, Alternatives and Public Policies.* Boston, MA: Little Brown & Co. (1984).
49. Aregbeshola BS, Khan SM. Primary health care in Nigeria: 24 years after Olikoye Ransome-Kuti's leadership. *Front Public Health.* (2017) 5:1–2. doi: 10.3389/fpubh.2017.00048
50. Hutchinson E, Parkhurst J, Phiri S, Gibb DM, Chishinga N, Droti B, et al. National policy development for cotrimoxazole prophylaxis in Malawi, Uganda and Zambia: the relationship between Context, Evidence and Links. *Heal Res Policy Syst.* (2011) 9:1–10. doi: 10.1186/1478-4505-9-S1-S6
51. Shearer JC. Policy entrepreneurs and structural influence in integrated community case management policymaking in Burkina Faso. *Health Policy Plan.* (2015) 30(Suppl.2):ii46–53. doi: 10.1093/heapol/czv044
52. Maurya D, Mintrom M. Policy entrepreneurs as catalysts of broad system change: the case of social health insurance adoption in India. *J Asian Public Policy.* (2020) 13:18–34. doi: 10.1080/17516234.2019.1617955
53. Ballart X, Fuentes G. Gaining public control on health policy: the politics of scaling up to universal health coverage in Uruguay. *Soc Theory Health.* (2019) 17:348–346. doi: 10.1057/s41285-018-0080-7
54. World Health Organization. Countries urged to take tough action to prevent NCDs. *Bull World Health Organ.* (2017) 95:672–3. doi: 10.2471/BLT.17.031017
55. The Kenya Legal and Ethical Issues Network on HIV and AIDS (KELIN). *Threat Posed By 2008 Anti-Counterfeit Act to Access Generic Medicines in Kenya.* Nairobi: KELIN (2012). Available online at: <https://kelinkenya.org/wp-content/uploads/2010/10/Anti-Counterfeit-Act-to-Access-Generic-Medicines-in-Kenya-booklet.pdf> (accessed January 24, 2024).
56. Setijaningrum E, Rahardian R. The power of policy entrepreneur in disability-inclusive policy-making. *Pol Govern Rev.* (2022) 6:176–88. doi: 10.30589/pgr.v6i2.504
57. He AJ, Ma L. Corporate policy entrepreneurship and cross-boundary strategies: how a private corporation champions mobile healthcare payment innovation in China? *Public Admin Dev.* (2020) 40:76–86. doi: 10.1002/pad.1868
58. Fraser JL, Alimi YH, Varma JK, Muraya T, Kujinga T, Carter VK, et al. Antimicrobial resistance control efforts in Africa: a survey of the role of Civil Society Organisations. *Glob Health Action.* (2021) 14:1–9. doi: 10.1080/16549716.2020.1868055
59. Chan OSK, Lam WWT, Fukuda K, Tun HM, Ohmagari N, Littmann J, et al. Antimicrobial resistance policy protagonists and processes—a qualitative study of policy advocacy and implementation. *Antibiotics.* (2022) 11:1–13. doi: 10.3390/antibiotics11101434
60. United States Politics and Policy Blog. *Policy Entrepreneurs Have More Power in the Policy Process Than We Give Them Credit for* (2021). Available online at: <https://blogs.lse.ac.uk/usappblog/2021/12/16/policy-entrepreneurs-have-more-power-in-the-policy-process-than-we-give-them-credit-for/> (accessed January 24, 2024).
61. Michaels S, Goucher NP, McCarthy D. Policy windows, policy change, and organizational learning: watersheds in the evolution of watershed management. *Environ Manage.* (2006) 38:983–92. doi: 10.1007/s00267-005-0269-0
62. Johannesson L, Qvist M. Navigating the policy stream: contested solutions and organizational strategies of policy entrepreneurship. *Int Rev Publ Pol.* (2020) 2:5–23. doi: 10.4000/irpp.740
63. Meijerink S, Huitema D. Policy entrepreneurs and change strategies: lessons from sixteen case studies of water transitions around the globe. *Ecol. Soc.* (2010) 15:21. doi: 10.5751/ES-03509-150221