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## **Designing Scientific Advisory Committees for a Complex World**

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Policymakers and researchers alike have called for a greater focus on evidence-informed decision making. [1,2] For decisions to be truly informed by scientific evidence, decision-makers must continuously seek scientific advice as part of a well-functioning policy advisory system.<sup>[3]</sup> Scientific advisory committees (SACs) are often a critical part of this process, and offer the potential of systematically identifying and assessing policy options in light of the best available scientific evidence. [4,5] New committees are constantly being created and old ones reformed worldwide. [4,6] In fact, many countries routinely rely on expert panels of various kinds to inform public policy. Yet, there is surprisingly little scholarly discussion of the process of science advice and, in particular, the institutional design features that

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influence the operations of SACs and what makes these committees effective. The result is that existing and new SACs may not be operating as effectively as they could, meaning that policy and program choices may not be as well informed by the best available research evidence as possible.

The articles in this special issue of Global Challenges on the institutional design of SACs bring together a broad suite of insights from researchers across several disciplines, including public health, medicine, economics, history, law, and political science.[7-17] The articles offer differing perspectives on what constitutes an effective SAC and what factors make SACs more effective. Read together, the special issue offers a rich array of ideas and options for ensuring the optimal design and operations of SACs which, in turn, increases the chances that decisions are informed by the best available research evidence.

This series comes at a fruitful time. In the current global political climate, it sometimes seems that policy decisions are made solely on the basis of short-term partisan or ideological concerns with little or no consideration given to the relevant scientific evidence. This is the result, in part, of decisions by some national governments to quietly alter the membership of numerous SACs or outright dissolve them without warning. Many of these committees, initially formed to advise various government policymakers on a wide array of pressing issues, have either been sidelined or their membership changed to give conflicted or partisan representatives a much stronger voice.[18] More generally, there is a growing mistrust of 'experts' sometimes linked to the rise of populist political parties of various kinds. Some have even suggested we live in a post-truth world.[19] In the face of these troubling trends, it is our hope that this special issue offers insights into how to optimally design SACs to ultimately bring the best-available research evidence to bear on complex policy decisions.

<sup>[1]</sup> H. Heinrich, in Democratization of Expertise? (Eds: S. Maasen, P. Weingart), Springer-Verlag, Berlin/Heidelberg 2005.

<sup>[2]</sup> A. C. Keller, Science in Environmental Policy: The Politics of Objective Advice, The MIT Press, Cambridge, MA 2009.

<sup>[3]</sup> J. Craft, J. Halligan, Policy Sci. 2018, 50, 47.

<sup>[4]</sup> M. C. Glynn Steven, Typifying Scientific Advisory Structures and Scientific Advice Production Methodologies (TSAS), PREST, University of Manchester, Manchester 2003.

<sup>[5]</sup> V. Reillon, Scientific Advice for Policy-Makers in the European Union, European Parliamentary Research Service, Member's Research Service 2015.

<sup>[6]</sup> Executive Board 124, Report of Expert Committees and Study Groups: Expert Advisory Panels and Committees and their Membership: Report by the Secretariat, 2009, http://www.who.int/ iris/handle/10665/2153 (accessed: September 2015).

www.advancedsciencenews.com

www.global-challenges.com

- [7] S. J. Hoffman, T. Ottersen, A. Tejpar, P. Baral, P. Fafard, Towards a Systematic Understanding of How to Institutionally Design Scientific Advisory Committees, Global Challenges, Stockholm, https://doi.org/10.1002/gch2.201800020.
- [8] J. A. Rottingen, T. Ottersen, A Supra-PAC: Need and Role for An All-of-Government SAC, Global Challenges, Stockholm, https://doi.org/10.1002/gch2.201700075.
- [9] M. P. Kieny, V. Moorthy, Systematic Analysis of Evidence and Sound Expert Assessment: Two Enablers of Evidence-based Decision-Making in Health, Global Challenges, Stockholm 2018.
- [10] G. M. N. Groux, S. J. Hoffman, T. Ottersen, A Typology of Scientific Advisory Committees, Global Challenges, Stockholm 2018.
- [11] A. Behdinan, E. Gunn, P. Baral, L. Sritharan, P. Fafard, S. J. Hoffman, An Overview of Systematic Reviews to Inform the Institutional Design of Scientific Advisory Committees, Global Challenges, Stockholm, https://doi.org/10.1002/gch2.201800019.
- [12] U. Gopinathan, S. J. Hoffman, T. Ottersen, Designing Scientific Advisory Committes to Maximize Effectiveness: Experience from the WHO, Global Challenges, Stockholm, https://doi.org/10.1002/ gch2.201700074.

- [13] B. J. D'Souza, J. O. Parkhurst, When "Good Evidence" is Not Enough: A Case of Global Malaria Policy Development, Global Challenges, Stockholm 2018.
- [14] S. E. Rosenbaum, J. Moberg, C. Glenton, H. J. Schunemann, S. Lewin, et al., Developing Evidence to Decision Frameworks and an Interactive Evidence to Decision Tool for Making and Using Decisions and Recommendations in Health Care, Global Challenges, Stockholm 2018.
- [15] S. Andresen, P. Baral, S. J. Hoffman, P. Fafard, What can be Learned from Experience with Scientific Advisory Committees in the Field of International Environmental Politics, Global Challenges, Stockholm, https://doi.org/10.1002/gch2.201800055.
- [16] E. B. Kennedy, Lessons for Scientific Advisory Committee Design from Boundary Organization Theory and Practice, Global Challenges, Stockholm, https://doi.org/10.1002/gch2.201800018.
- [17] L. Paremoer, Situating Expertise: Lessons from the HIV/AIDS Epidemic, Global Challenges, Stockholm 2018.
- [18] S. Kaplan, B. Dennis, 'Defense of Science,' Researchers Sue EPA Over Move to Overhaul Advisory Boards, The Washington Post, December 21, 2017.
- [19] S. Sismondo, Soc. Stud. Sci. 2018, 47, 3.