

Evidence-Based Decision Making for Vaccines: The Need for an Ethical Foundation

Robert I. Field, JD, MPH, PhD^a and Arthur L. Caplan, PhD^b

^aDrexel University Earle Mack School of Law and School of Public Health, ^bUniversity of Pennsylvania Center for Bioethics

The Issue: Ethical Mismatch

Many ethical considerations that support evidence-based decision making (EBDM) when used to evaluate therapeutic care do not readily translate to prevention. This mismatch can result in policy decisions that produce unanticipated negative consequences, including public resistance.

How Are Vaccines Different?

In its emphasis on quantifiable outcomes, EBDM invokes the ethical principle of rule-utilitarianism. However, vaccines raise additional ethical concerns, including:

- Individual autonomy in emphasizing widespread compliance
- Beneficence in favoring population over individual effects
- Justice in allocating supplies
- Challenges to social norms

The Challenge for Vaccine Policy

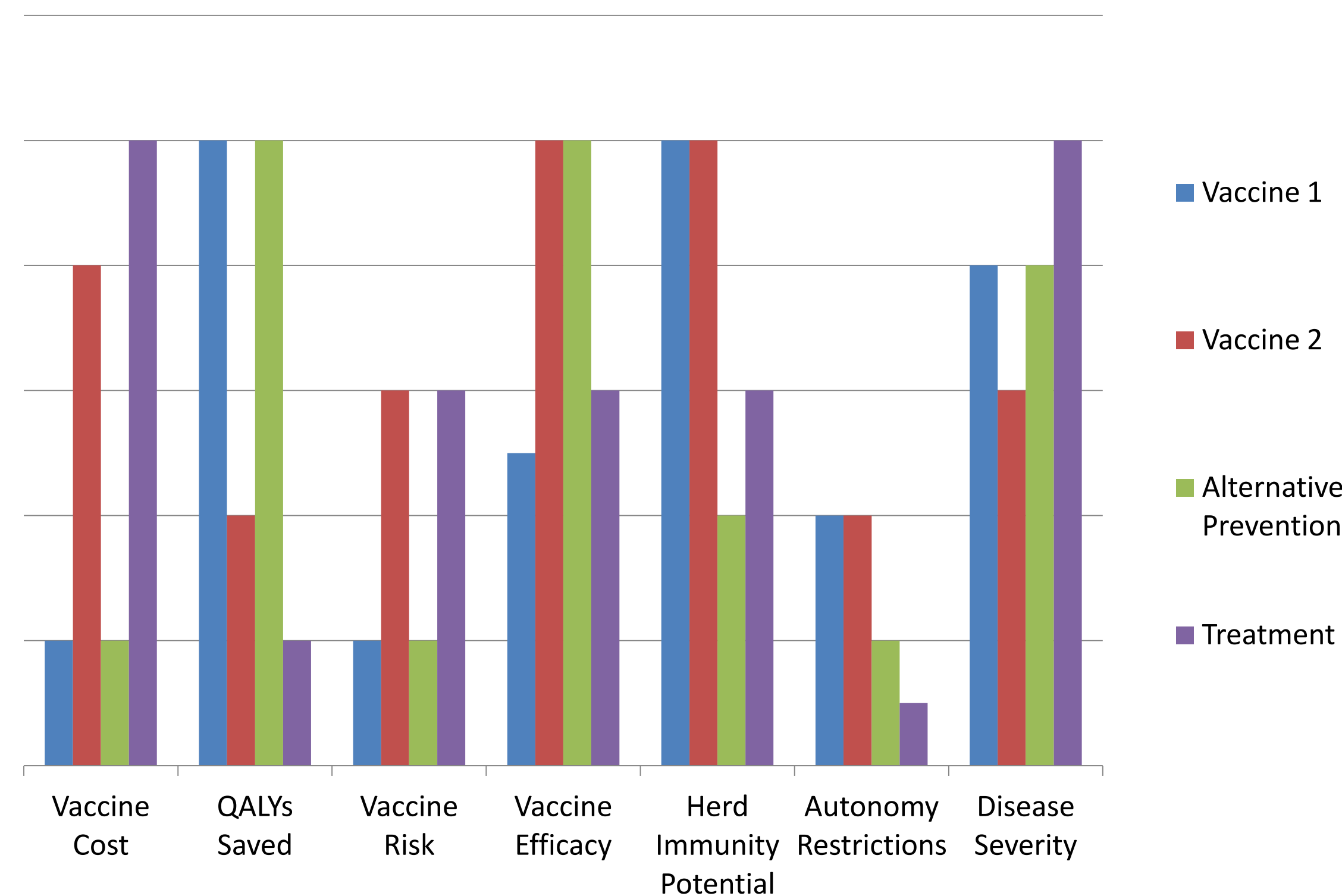
For EBDM to effectively guide vaccine policy makers, such as the Advisory Committee on Immunization Practices (ACIP), an ethical foundation is needed that systematically considers all relevant values and transparently places recommendations in the context of social norms and individual concerns.

A Suggested Solution

A multifaceted set of outputs rather than a single numerical indicator such as a cost-benefit ratio may be appropriate. Relevant considerations could be presented in a graphical form. Each one, weighted according to the cultural context, could be indicated in a chart that displays outcomes across relevant dimensions. Policy makers could compare patterns of effects across alternative interventions.

Template for analysis of multiple vaccine considerations

(Dimensions and relative values assigned to them are illustrative.)



Conclusion

Public concerns over vaccine policy include fears over:

- Loss of personal autonomy
- Inadequate protection of the weak
- Undue attention to the most profitable vaccines
- Diversion of resources from the therapeutic needs of those who are already ill

An alternative to traditional EBDM could explicitly address such broader concerns and more transparently place vaccination policy in the context of societal norms and sensitivities.

Acknowledgements

This work was developed in conjunction with the Center for Vaccine Ethics and Policy, a program of the Center for Bioethics at the University of Pennsylvania, The Wistar Institute Vaccine Center, and the Vaccine Education Center of Children's Hospital of Philadelphia. The authors thank David R. Curry for his insights and comments.

Citation

Field, R.I. and Caplan, A.L. Evidence-based decision-making for vaccines: the need for an ethical foundation, *Vaccine* 30(2012) 1009-1013.