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Rethinking vaccine policy making in an era of vaccine hesitancy

Time to rebuild, not remodel?

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Recently in this journal, David Ropeik argued for imposing additional burdens upon individuals who refused vaccines for themselves or for their children. Specifically, Ropeik advocated for policies that would decrease the ease of claiming vaccine exemptions and restricting unvaccinated children participation in social activities. We argue that, in order to derive the optimal societal benefit from modern vaccinology in an era of vaccine hesitancy, we need to consider doing more than conventional remodeling of current policies. We may need to fundamentally redesign and rebuild.

In a recent article in this journal, David Ropeik argued for imposing additional burdens upon individuals who choose not to receive vaccines for themselves or for their children.[1] His argument is mainly predicated upon the claim that fear of vaccines—a primary driver of vaccine refusal—will not yield to information or educational campaigns. Therefore, to improve vaccine acceptance among those fearful, and mitigate their increased risk of developing and transmitting vaccine-preventable disease, Ropeik states that stronger immunization imperatives are justified. His policy solutions include decreasing the ease of claiming vaccine exemptions, offering economic incentives for parents to immunize themselves and their children, and restricting unvaccinated children participation in social activities.

We certainly share Ropeik's overall goal of improving vaccine acceptance among parents and the general public. We also agree with the need to promote a broader public discussion to develop policies that optimize the balance between restricting individual choice and promoting the common good. In fact, we too have written about our general support for prudent state immunization policies that foster public and parent-provider dialog and specifically have suggested policy solutions similar to those Ropeik proposes.[2-4]

Perhaps, though, we have it wrong. Perhaps, in this new era of increasing vaccine hesitancy, it is no longer sufficient to rely on policy solutions that simply remodel conventional vaccine policy. Perhaps, too, it is no longer adequate to depend solely on policy-making processes that involve expert committees composed almost entirely of infectious disease and public health experts. Instead, maybe it is time to fundamentally redesign and rebuild.

Rebuilding may well be necessary because the origins of the current resurgence of vaccine hesitancy are unprecedented in the history of vaccine policy-making. Today, vaccine policy is faced with a host of new variables—a low incidence of many childhood vaccine-preventable diseases linked to heightened concerns about vaccine safety, increased recognition of the limits of medicine and technology, a socio-cultural landscape that promotes consumerism, a perception

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among the public that multiple truths exist, instant world-wide communication, the prospect of burgeoning numbers of new vaccines that hold the promise of reducing morbidity from infectious diseases unfamiliar to the public, and decades of decreasing investment in public health.[5] Vaccine policy-making structures that evolved in the era of epidemic polio and measles, although having undergone substantial adaptations over the years, are nonetheless sorely challenged to consider and respond to these new variables.

Rebuilding may also help alleviate some of the constraints traditionally imposed upon policy remodel efforts. For instance, policies, once remodeled, often still operate within time-honored structures with participation limited to the usual stakeholders. This can dampen their innovativeness and impact. Consider the policy change regarding removal of thimerosal from childhood vaccines. This was a policy remodel intended to bolster public confidence in the safety of vaccines, yet its effect in doing so was limited. Could this policy remodel have had a larger impact if it had been decoupled from standard strategies for communicating policy changes and instead linked to one that had the capacity to be adaptable, draw upon social psychology, and employ marketing expertise in its messaging?

Whether it is due to the policy-making process or the policy itself, remodels may just not be enough in an era of vaccine hesitancy. Indeed, in the last decade, policy fixes put into place have not stemmed the rising tide of vaccine hesitancy: the proportion of parents who have concerns about vaccines remains high,[6-8] one in ten parents subscribe to an immunization schedule that is out of compliance with that recommended by the Centers for Disease Control and Prevention,[9-11] and the rate of increase in the percentage of parents claiming non-medical exemption nationally is accelerating.[12] We therefore need to begin to ask ourselves: can policy fixes, and policy-makers selected primarily for their technical expertise in vaccinology, epidemiology, clinical medicine, and public health, help the public navigate the multitude of vaccine information sources that are present today and initiate a broad public discussion of values, individual obligations and public trust regarding immunization? In order to derive the optimal societal benefit from modern vaccinology, we believe that the complexity of this challenge may demand more than just conventional remodeling and more than the customary viewpoints and expertise. To paraphrase Georges Clemenceau, immunization is too serious a matter to entrust to vaccinologists.

What are some ideas upon which to rebuild vaccine policy? We offer 3 as a starting point. First, we disagree with Ropeik that fear of vaccines is impervious to information. Rather, we believe that we instead need to rethink when to give people information, where to do it, how to present it, and who should educate. For example, we need to better understand when vaccine attitudes and beliefs are formed—likely long before a newborn well-child visit—in order to re-envision the role institutions such as schools and universities can play in the education of the public about vaccines and about the role of public health in contemporary society.

Second, we need to rethink how vaccine policy and the national, state and local immunization programs that implement it can be less reactive and more proactive. In order to better function out in front of an immunization issue, we need to find ways to redesign vaccine policy-making so that it greatly expands the public's engagement. Even more challenging is that we need new ways to identify mechanisms and opportunities to shape social norms regarding immunization attitudes and behavior. We can no longer be constrained by historical notions about what is the common good, what are the risks to society and the individual, and where trade-offs lie between protecting public health and individual choice. These are dynamic concepts requiring dynamic policy.

Third, we need to get back to the basics. Parents who refuse vaccines overwhelmingly do so because they firmly believe they are doing what is best for their child. We need policies and practices that are grounded in this perspective rather than focused on forcing parents to comply. As one of us has argued elsewhere, vaccine policy that invests in a better understanding of the root causes of vaccine refusal is more apt to shape behavior than policy that largely invokes compulsion.[2]

It is not time to abandon current policy. Rather, it is time to consider how we might redesign and rebuild vaccine policy and the policy-making process to regain public confidence and sustain it in the future. The challenge posed by this new era of vaccine hesitancy demands it.

Disclosure of Potential Conflicts of Interest

No potential conflicts of interest were disclosed.

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