

Innovative Clinical and Public Health Strategies to Promote Adolescent Vaccination

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In 1998, the Society of Adolescent Health and Medicine (SAHM) advocated for national coverage rates of 90% or greater for measles, mumps, and rubella; hepatitis B; tetanus; and varicella vaccines among adolescents aged 13 years and older and endorsed the importance of state school entry requirements for vaccination among the sixth and seventh graders [1]. Data are clear that state-mandated school immunization requirements have significantly contributed to improving the rates of vaccination coverage among adolescents [2]. Exemptions to school immunization requirements continue to be a political football in many state legislatures across the United States. Parental concerns about vaccine safety have been responsible for as many as half of nonmedical exemptions to required mandated immunization and likely contribute to increased efforts to expand exemption efforts [2,3]. However, recent data have demonstrated that all the legislative efforts to expand exemptions have failed, and the majority of bills designed to restrict the types of allowed exemptions have been successful [3]. Unfortunately, mandates did not help achieve Healthy People 2010 adolescent vaccination benchmarks, and mandates alone will not be the only effective strategy for meeting the benchmarks set for 2020 objectives. Thus, alternative solutions and strategies are required.

This is the author's manuscript of the article published in final edited form as:

Kahn, J. A., & Rickert, V. I. (2015). Innovative Clinical and Public Health Strategies to Promote Adolescent Vaccination. *Journal of Adolescent Health*, 56(5, Supplement), S1–S2.
<http://doi.org/10.1016/j.jadohealth.2015.02.002>

In 2006, SAHM released a position paper espousing an “adolescent vaccine platform” recommended by multiple organizations that linked vaccination to the three distinct annual visits during early, middle, and late adolescence [4]. Despite this logical and intuitive approach, the strategy has not been effective in reaching all adolescent age groups. This has been particularly discouraging for those of us who have actively worked for the last two decades in an effort to increase the awareness and importance of adolescent preventive health services and immunizations.

Improving immunization rates for all recommended adolescent vaccines is a complex effort and will require more than one solution or strategy. A qualitative study identified six barriers to achieving high rates of adolescent vaccination: concerns of the general public; concerns of health care professionals; vaccine delivery issues; minor consent; vaccine cost and financing; and lack of coordination in the timing of vaccine recommendations, supply, and financing [5]. Each of these barriers will require a substantial investment of resources to achieve effective and pragmatic solutions.

In 2010, Merck and Company, Inc. released a request for proposals to develop, implement, and evaluate innovative public health demonstration projects to promote improved immunization rates among adolescents. Given the wealth of immunization-related researchers that identify SAHM as their primary organization, the Society submitted an application which was funded in July 2011.

After developing the necessary infrastructure, that is, governing and grant review committees, SAHM created a request for proposals with three primary objectives. Each potential application was to define an effective strategy for increasing adolescent vaccination; promote racial, ethnic, and socioeconomic equality through vaccination; and disseminate this strategy such that it could be successfully replicated in other settings. Applicants were encouraged to use a public health practice approach, target a large number of adolescents, and include a strong evaluation component to ensure the validity of obtained results. In addition, any products or materials that developed and distributed with grant monies would be

disseminated to all interested parties. SAHM received more than 200 letters of intent that resulted in 82 full proposals. In January 2012, SAHM funded 10 projects for a 24-month period. This supplement represents the culmination of this endeavor: 8 of 10 projects provide data about the public health strategies implemented and their effectiveness. It is our belief that these data, materials, and lessons learned can provide several missing pieces of a multifaceted approach to improve rates of adolescent immunization.

One of the themes that emerged was that a “one size” fits all strategy model does not and will not universally improve rates of vaccination among adolescents or young adults. It is clear that we need to continue to work to increase awareness and knowledge of specific vaccines not just among parents and adolescents, but among health care professionals as well. In addition, we must avail ourselves of technology, especially programs that have been developed that can easily transfer from one platform to another to increase vaccination rates through automated data systems to track immunizations and reminder/ recall systems. Most importantly, consistent with best practices in public health, interventions must build communication and trust with targeted communities that ultimately develop culturally and linguistically competent messages and materials. Without this activity, technology or the intervention strategies will not be successful. Finally, we must work to increase access to the types of venues where vaccines are administered, and these should include alternative settings, such as mobile vans and school-based health centers. To provide adolescent-friendly services, one must first find the adolescent patient. Many are not able to come to a defined medical home or other traditional primary care venue.

The projects presented in this supplement provide a diverse set of strategies to mitigate barriers to adolescent vaccination, improve vaccination rates, and decrease disparities in vaccine-preventable diseases. It is our hope that these strategies will be disseminated broadly with the ultimate goal of improving health outcomes for adolescents and young adults.

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References

Conflicts of Interest: J.A.K. chaired the grant review committee for the Society for Adolescent Health and Medicine that provided the funding for the public health demonstration project proposals to improve adolescent vaccination described in this supplement; grant funding for this program was from Merck & Co., Inc. J.A.K. has also co-chaired two NIH-funded human papillomavirus vaccine clinical trials in HIV-infected young women and men, for which Merck & Co., Inc. provided vaccine and immunogenicity titers. V.I.R. serves on the U.S. Advisory Board for Human Papillomavirus for Merck & Co, Inc. and has served on the Adolescent Health and Wellness Advisory Boards for Pfizer, Inc. The writing of this piece was supported in part from a grant from Health and Human Services Administration (T71MC0008) to V.I.R. Disclaimer: Publication of this article was supported by the Society for Adolescent Health and Medicine through a grant from Merck & Co., Inc. The opinions or views expressed in this supplement are those of the authors and do not represent the position of the funder.

[1] D'Angelo L. Immunization of adolescents: Position statement of the Society for Adolescent Medicine. *J Adolesc Health* 1998;23:119.

[2] Omer SB, Pan WKY, Halsey NA, et al. Nonmedical exemptions to school immunization requirements: Secular trends and association of state policies with pertussis incidence. *JAMA* 2007;296:1757e63.

[3] Omer SB, Peterson D, Curran EA, et al. Legislative challenges to school immunization mandates, 2009-2012. JAMA 2014;311:620e1.

[4] Middleman AB, Rosenthal SL, Rickert VI, et al. Adolescent immunizations: A position paper of the society for adolescent medicine. J Adolesc Health 2006; 38:321e7.

[5] Ford CA, English A, Davenport AF, Stinnett AJ. Increasing adolescent vaccination: Barriers and strategies in the context of policy, legal, and financial issues. J Adolesc Health 2009;44:568e74.