NC Immunization Program Adolescent AFIX Evaluation

In 2011, the North Carolina Immunization Program (NCIP) conducted a formal evaluation of its adolescent AFIX (Assessment, Feedback, Incentive, and eXchange) program. To be eligible to participate in this study, practices had to be an active member of the NCIP and be using the NC Immunization Registry (NCIR). In addition, the practice had to be classified as either a family practice or pediatric practice and had to serve at least 200 adolescents between the ages of 11 and 18. Local health departments were excluded from this study.

Once the list of eligible practices was extracted, the practices were randomly assigned to one of the two experimental groups or to the control group. The first experimental group consisted of 30 practices that received an in-person adolescent AFIX visit to discuss immunization rates and strategies for improving those rates. The second experimental group consisted of 31 practices that received a virtual or webinar visit covering the same information. In addition, 30 practices were assigned to the control group. Those in the control group did not receive any visit; however their immunization rates were analyzed. The NCIP assessed the adolescent immunization rates of participating providers using NCIR data and COCASA. COCASA is the CDC’s Comprehensive Clinic Assessment Software Application.

During the assessment visit (either in-person or by webinar), the practice received:

- Current vaccination coverage rates for the 11-12 and 13-18 year olds seen by the practice for the following vaccines: Tdap, HPV, MCV4, MMR, Varicella, and Hep B;
- An analysis of missed opportunities and a list of patients who are missing immunizations;
- Strategies on how to improve adolescent rates; and
- Training on how to use the request/remider function of the NCIR
The primary goal for these assessment visits was to increase knowledge and utilization of adolescent vaccines and to improve adolescent vaccination rates in North Carolina. The overarching goal for this adolescent AFIX evaluation initiative was to develop the most effective and efficient strategy for conducting adolescent AFIX visits, and to determine the effectiveness of virtual (webinar) visits vs. in-person visits.

The planning, implementation and data collection of this project occurred between January and December of 2011. The evaluation of this program occurred in early 2012. No additional funding was needed for this project. Costs for staff, materials, travel and software were covered by VFC/AFIX and 317 Operations annual grant funds.

This project was innovative for the NCIP for two main reasons. This was the first time the NCIP had conducted a formal analysis of the adolescent AFIX program. Adolescent AFIX itself was a new program for North Carolina, and there was great interest in determining if it was as effective strategy at raising rates, as compared to traditional AFIX programs that focus on the two-year old population. Efforts were made to ensure that the design of the study was as scientific as possible so that the results of the project could be analyzed and findings could be generalized. The second reason this project was innovative for the NCIP is that it was the first time AFIX visits (of any type) were conducted by webinar. Our intent was to determine if there was any difference in the effectiveness of an AFIX visit occurring in-person or by webinar.

The project itself was relatively easy to implement. The biggest challenges occurred in simply trying to schedule and coordinate the visits themselves. Particularly when scheduling the webinar visits, a high percentage of them had to be rescheduled multiple times.

The project itself was determined to be a success, and data collected was able to prove not only was the adolescent AFIX program effective at raising immunization rates, but that utilizing
webinars was a cost-effective and efficient way to conduct these visits. Data collected for evaluation included coverage rates at both the time of the visit (baseline) and five months post-visit and pre- and post-visit surveys focusing on recall tactics utilized by each practice.

When comparing practices receiving the intervention (either the in-person or webinar visit) – the adolescent rates for 3 doses of Hepatitis B, 1 dose of Meningococcal, 2 doses of MMR, and 1 dose of Tdap improved 8.2 percentage points between baseline and the five-month follow-up, as compared to the control group that improved only 3.8 percentage points. In addition, the webinar group proved to be slightly more effective in improving adolescent rates, with an 8.7% change in percentage between baseline and follow-up – as compared to the in-person group’s rate of 7.5% improvement in rates.

The cost effectiveness of both methods of conducting adolescent AFIG visits was also evaluated. The webinar cost per visit, based on 100 visits, which included the software license, mailing costs, and staff time was $50.35. The in-person cost per visit, based on 100 visits, which included travel and staff time was $75.52. According to data collected in the post-visit survey, the participants themselves found the adolescent AFIG visits (both in-person and by webinar) to be helpful and easy to understand. In addition, when offered a choice between visit types, the majority of providers preferred the type of visit that they received.

This program can be easily replicated by other immunization programs. We generated the assessment report using the NCIR and COCASA. We also used a common, affordable webinar software called Adobe Connect to conduct the webinar trainings. The limitations and costs to this project are minimal and the efforts proved to be an effective method to increase adolescent coverage rates and at a potential decreased cost.