Prior to patient visits, clinical staff reviewed the Georgia Registry of Immunization Training and implementation of standing orders was used by nursing staff who performed vaccinations. Handouts were given to all eligible patients when they registered at the clinic's front desk. Clinical champions used the above strategies to maximize screening rates in their respective sites. So other participating clinics did not have a champion but were encouraged to use the same interventions.

**Background**

Albany Area Primary Health Care (AAPHC) is a Federally Qualified Community Health Center in Albany, Georgia. AAPHC has a total of 18 service delivery sites that serve the residents of Baker, Calhoun, Dougherty, Lee, and Terrell Counties (Southwest Georgia). In 2016, AAPHC provided care to 37,944 patients with a total of 150,333 visits. Services at AAPHC are provided by 81 providers (33 physicians, 34 mid-level providers, 5 dentists, and 9 mental health professionals). In 2015, the pneumococcal pneumonia adult immunization rate was 41% across the AAPHC network of clinics. To combat the low pneumococcal immunization rate, AAPHC planned and implemented the Pneumococcal Immunization Initiative, with the goal of the initiative is to address the follow three areas of concern:

1. The wide disparity in the immunization rates within the AAPHC patient population when looking at age, gender, and other risk factors.
2. Lack of cohesion among the various reporting agencies used for reimbursement including: Patient Centered Medical Home (PCMH), Accountable Care Organization (ACO), Uniform Data System (UDS), Healthcare Effectiveness Data and Information Set (HEDIS), Meaningful Use, and private insurance.
3. Pneumococcal vaccinations are a vital, but often neglected part of preventive health care management. The burden of pneumonia is heavy but can be reduced one vaccination at a time.

**Objective**

To increase the number of patients, age 65 and older, who receive the pneumococcal vaccinations (PPSV23, PCV13). The change began by educating staff during clinical champion training and to inform staff of workflow process.

**Methodology**

Prior to patient visits, clinical staff reviewed the Georgia Registry of Immunization Training and implementation of standing orders was used by nursing staff who performed vaccinations. Handouts were given to all eligible patients when they registered at the clinic's front desk. The handouts were provided in patients' native language and at a comprehension level comparable to the patient's education level.

Training and implementation of standing orders was used by nursing staff who performed initial patient image.

*Pneumococcal vaccinations are administered to all eligible patients prior to the provider encounter.*

Patient records are used to standardize follow-up calls to patients regarding the pneumococcal vaccine [see Centers for Disease Control (CDC) pocket cards].

Pneumococcal vaccinations were administered to all eligible patients prior to the provider encounter.

**Results**

Pneumococcal vaccination rates rose from 19.9% to 60.1% (n=4,082 patients) in 10 months. The top three performing physicians were from the champion’s clinic and had increases of 100%, 98%, and 102.2%. The bottom three physicians were from non-champion clinics. There was a trend toward increased rates in non-champion sites after 10 months, possibly because of the monthly reports, which allowed peer-to-peer comparisons.

After 10 months, from May 2016 to Feb 2017, the immunization rates electronically documented for the 4,082 patients in the study group rose from 19.9% to 60.1%. Sites where clinical champions practiced had the greatest increase in screening. The top three physicians in this champion’s group had rates of 97.2%, 73.5%, 94.6%, up from 25.8% and 90.2%, up from 30.6. The bottom three physicians were all in clinics with no champion and ended the months at 38.1%, 36.1%, and 34.5%. There seemed to be a significant trend to increase immunization rates during the later months of the pilot in the non-champion clinics as monthly reports came out and physicians saw their rates lagging behind their peers.

**Clinical Implications**

According to the American Thoracic Society, one million adults are hospitalized annually for pneumonia as an index of hospitalization and 80,000 of those adults will ultimately die. It ranks as the second most common cause of adult hospitalization second only to childbirth. Even if a patient survives a hospital stay, the recovery can be long-term and result in considerable consequences that recovery from pneumonia can mean:

- Loss of employment
- Reduced household income
- Death of a family member
- Financial burden
- Cognitive decline, and decreased quality of life for an extended period of time

In 2015, pneumonia was responsible for $10,600,000,000 in health care related costs and ranks in the top ten of most expensive medical conditions during inpatient hospitalizations. Numerous studies have shown the high rates of morbidity and mortality associated with advanced age and pneumonia. Some studies estimate that 60% of pneumonia deaths occur in the elderly. With current population trends, it is estimated by 2020 the United States could see 65 million people age 65 and older at an increased risk for acquired immunodeficiency syndrome. In 2015, the Centers for Disease Control and Prevention recommended the following to the clinicians, the National Immunization Program, and AHRQ: AAPHC was able to achieve a 40% clinic-wide increase in screening rates for eligible patients. Through patient engagement, education, and follow-up AAPHC was able to bend the curve on pneumonia vaccination and also measurably keep the aging population healthier. The study focused on implementing provider and staff education as well as a workflow process ensuring patients were offered the vaccine at multiple visits and given information throughout the process. Patients presented with this information multiple times more likely to receive the vaccine.

The main finding is it is important to remember the importance of pneumococcal vaccinations. In addition, the subset of patients under the age of 65 who qualify should be included in vaccine efforts. The burden of pneumonia is heavy and can be reduced one vaccination at a time.

**Acknowledgements**

The researchers and authors of this study would like to thank the patients of AAPHC for their support and willingness to participate in our various research projects. The study would not have been possible without the support of staff at the clinical clinic, our clinical individual champions and their tireless efforts. Lastly we would like to acknowledge Forward Health Group for their technical and analytical support and also the various student researchers that contributed to the project.

**References**