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Adult Immunization (AI) Best Practices Learning Collaborative, Group 3: Case Study

Coastal Carolina Health Care, P.A.

New Bern, NC

Organizational Profile

Coastal Carolina Health Care, P.A. (CCHC) is a multispecialty, physician-owned medical practice comprised of 60 providers, the majority of whom specialize in primary care. The practice is located in rural southeastern United States with a primary service area of approximately 125,000 residents. The group was formed in 1998 by the merger of four medical practices. Today, the group has 11 clinical practice sites, a free-standing imaging center, ambulatory surgery center, urgent care, and accredited sleep and echo labs, all with a common integrated electronic health record (EHR). The group serves more than 40,000 patients. The group also operates its own accountable care organization (ACO), which it launched in 2012.

The mission of CCHC is to promote the health of patients by providing timely, high-quality, compassionate, affordable, and personalized health care. The vision is to become the preferred medical group in the area by consistently meeting the changing healthcare needs and expectations of the patients CCHC serves. CCHC core values include:

- **Quality**: Improving the patient experience, including quality and satisfaction
- **Patient-Centered Care**: Engaging patients in shared decision making to encourage active participation in their own care
- **Care Coordination**: Helping patients navigate the healthcare system by supporting collaboration and communication through the use of a common EHR across medical specialties
- **Innovation**: Leading healthcare innovation with an openness to adoption and adaptation of evolving technologies

Executive Summary

CCHC implemented an organization-wide immunization initiative to improve immunization rates. The initiative focused on patient convenience, staff training on point-of-care dashboard with immunization/immunization clinical decision support aligned with current Advisory Committee on Immunization Practices (ACIP) recommendations (see Appendix), and refinement of standing orders.

Results were diluted during the AMGA Adult Immunization Best Practices Collaborative (AI Collaborative) by the acquisition of a primary care department that was transitioning from paper records to the EHR. Prior immunization data was not available for reporting; however, the patients were included in the population. The group was able to improve pneumococcal immunization for patients age 65 and older. This population was more amenable to being vaccinated than the other two cohorts, and the algorithm for patients 60 or older was easier to understand for the staff. CCHC was unable to improve pneumococcal immunization rates for at-risk or high-risk patients due to the acquisition of a primary care group, difficulty convincing patients to receive the vaccine, and the immunization algorithm. For the influenza immunization, CCHC did see a slight improvement. Main barriers were documentation-related due to lack of a bidirectional immunization registry.

Acronym Legend

ACIP: Advisory Committee on Immunization Practices
ACO: Accountable Care Organization
AI Collaborative: AMGA's Adult Immunization Best Practices Collaborative
CCHC: Coastal Carolina Health Care, P.A.
CDC: Centers for Disease Control and Prevention
EHR: Electronic Health Record
HP2020: Healthy People 2020
PDSA: Plan Do Study Act
QA: Quality Assurance

Program Goals and Measures of Success

AI Collaborative Goals

Collaborative goals were set for the Adult Immunization Collaborative (Groups 2 and 3 participants). The AI Collaborative goals were set based on reviewing the Healthy People 2020 goals from the federal office of Disease Prevention and Health Promotion (HP2020)[1], baseline data for each group, and with input from the AI Collaborative advisors (see Appendix).

CCHC implemented an organization-wide immunization initiative to improve immunization rates with four cornerstone principals in mind:

1. Patient Convenience. CCHC believes that patients will continue to receive annual influenza immunizations and lifetime pneumococcal immunizations if a focus is placed on access and convenience. In the past, many clinics have had

set hours for immunizations. One of the key principals of the CCHC Cares Immunization Initiative has removed restrictions on when a patient can walk in for an immunization. The group realizes that it is competing directly with local pharmacies that are able to provide convenience and easy access for immunizations.

2. Patient and Staff Communication. In the past, CCHC has limited the administration of vaccines to regularly scheduled appointments or specified dates and times during influenza season. In a sense, by doing so CCHC has trained its patients to seek out alternatives when these times were not convenient. The consistent message for the immunization initiative is to make it convenient for the patient, not necessarily the staff. This is a change that requires consistent reinforcement and Plan Do Study Act (PDSA) cycles, as CCHC has to re-train both patients and staff to let them know that patient convenience is important.

3. Standardized Workflows. The medical group has developed standardized workflows for rooming of patients using its point-of-care dashboard. The dashboard is to be used during the rooming process for every patient, every time. The dashboard contains both preventive (immunizations) and chronic disease care actions (see Appendix). Clinical staff review the care actions and close as many care gaps as possible during each patient visit. Immunization measures are prioritized during each visit.

4. Standing Orders. The medical group has standing orders for immunizations to enhance patient convenience and to support standardized workflows.

Data Documentation and Standardization

The data analytics team used the AI Collaborative measure specifications to develop and test data extraction queries. Immunization data is stored in the Health Maintenance section of Allscripts and claims data. The quality assurance (QA) process confirmed that the measure calculation included all available data.

Population Identification

CCHC's 11 multispecialty, primary care, neurology, gastroenterology, cardiology, pulmonology, rheumatology, and endocrinology practice sites all provide immunization services to its 40,000 patients in a small rural geographical area. More than 25,000 of the 40,000 total patients are adults age 18 and older.

The medical group has had a long-term partnership with Allscripts and utilizes the Touchworks EHR product, Allscripts Reporting (data analytics), and Allscripts Clinical Quality Solution (point-of-care and population management dashboard) in its day-to-day operations. CCHC also has access to health plan claims to identify patients who receive immunizations from outside providers.

The group has retrieved, analyzed, and trended influenza and pneumococcal immunization rates since 2009 and continued to do so during this project. Patients are placed into populations, or registries, based on their age, sex, risk factors, and chronic diseases. These registries are used to populate the point-of-care dashboard, quality measure performance reports, and pursue lists of patients who have not had the appropriate immunizations.

Data on the immunization measures is reviewed monthly by the Quality Assurance and Review Committee and at monthly practice meetings, office manager meetings, and all staff meetings.

Intervention

CCHC set a goal to improve provider, staff, and patient education to improve immunization rates. To do so, the group deployed the following interventions.

Provider and staff education

- Developed a computerized point-of-care dashboard for pneumonia and flu vaccines based on Centers of Disease Control and Prevention (CDC) and ACIP recommendations, which presented up-to-date patient information at each visit

Patient education

- Created posters and patient education materials (see Appendix 2) to help increase awareness of the need for immunization

Information technology

- Patient registries that enabled data abstraction and reporting to each clinical practice site were utilized to improve rates and target improvement areas

Clinical support

- Refined and reinforced standing orders and use of the point-of-care dashboard that contains immunization algorithms
- Implemented a request for patients to state their age prior to immunization so as to prevent vaccine errors
- Used a patient reminder system and patient portal for outreach and patient recall for missed immunizations
- Refined internal mechanisms to ensure vaccine ordering and distribution were not barriers to immunizing patients

Outcomes and Results

CCHC was able to achieve a nearly 87% immunization rate for Measure 1, even with the addition of the new practice (see Appendix). This was an improvement over the baseline performance of 84.2%. Although CCHC did not achieve the 90% goal, the group is continuing its efforts to improve the measure rate. Measure 2 was a very difficult measure to improve. Significant barriers existed and, with the addition of a new practice, the baseline data was higher than each quarter of the AI Collaborative period. The group fell short of the 60% goal, but was able to achieve a 30.3% rate. The Measure 3 goal of 45% was not achieved. The group performance of 20.1% was well below expected. As a result, internal processes continue to be reviewed and improved.

Lessons Learned and Ongoing Activities

The AI Collaborative was very helpful in highlighting areas for substantial improvement. Targeting patient education for the pneumococcal at-risk population is beginning to show promise. Exam room posters, patient handouts, clinician discussion, point-of-care tools, and data analysis will all be used in the future to help improve immunization rates.

Additionally, staff education around pneumococcal vaccine algorithms is a continuous process. Many clinical team members are unsure about which vaccine is needed and miss opportunities to immunize. CCHC is evaluating enhancements to clinical decision support tools.

The group is continuing to use the reporting process and all tools implemented during the AI Collaborative. All interventions will be updated on a continuous basis.

References

1. Office of Disease Prevention and Health Promotion (ODPHP). Healthy People 2020. healthypeople.gov.

Appendix

Collaborative Goals

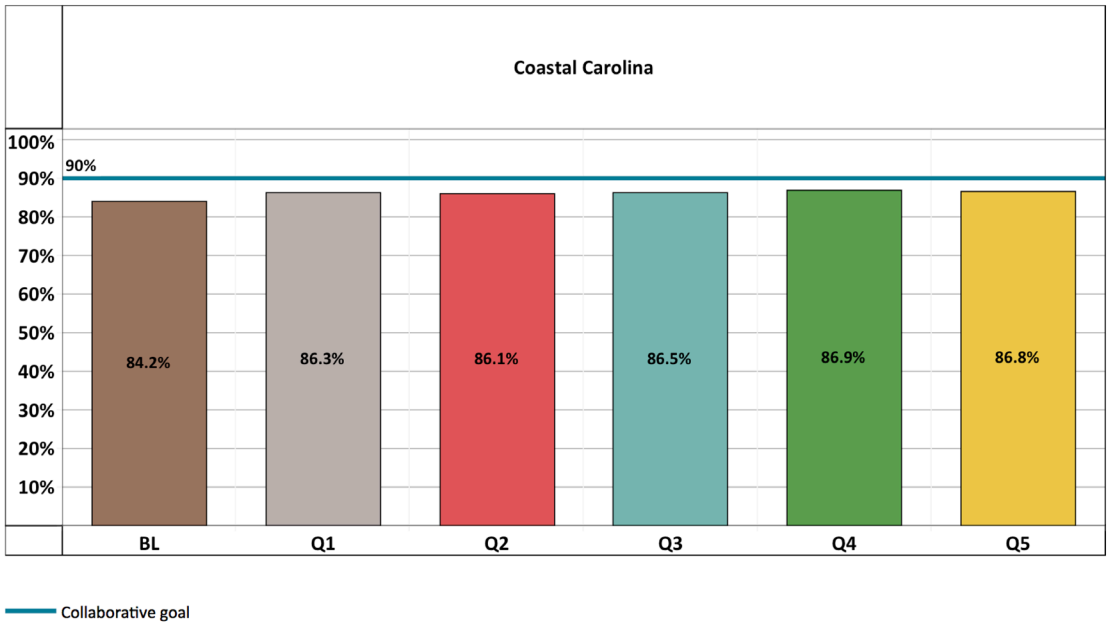
Measure	Healthy People 2020	Collaborative Goal
Measure 1 (65+) Any	90%	90%
Measure 1 (65+) Both PPSV and PCV*	90%	60%
Measure 2 (High-Risk)	60%	45%
Optional Measure 2a (At-Risk)**		
Measure 3 (Flu)	70%/90%***	45%

* Increasing "Both" is a good goal for Groups which are already doing well on "Any"

** According to CDC guidelines, it is not currently recommended that the at-risk population receive PCV. Therefore,"PPSV" or "Unknown pneumococcal vaccination" are numerator options for Measure 2a.

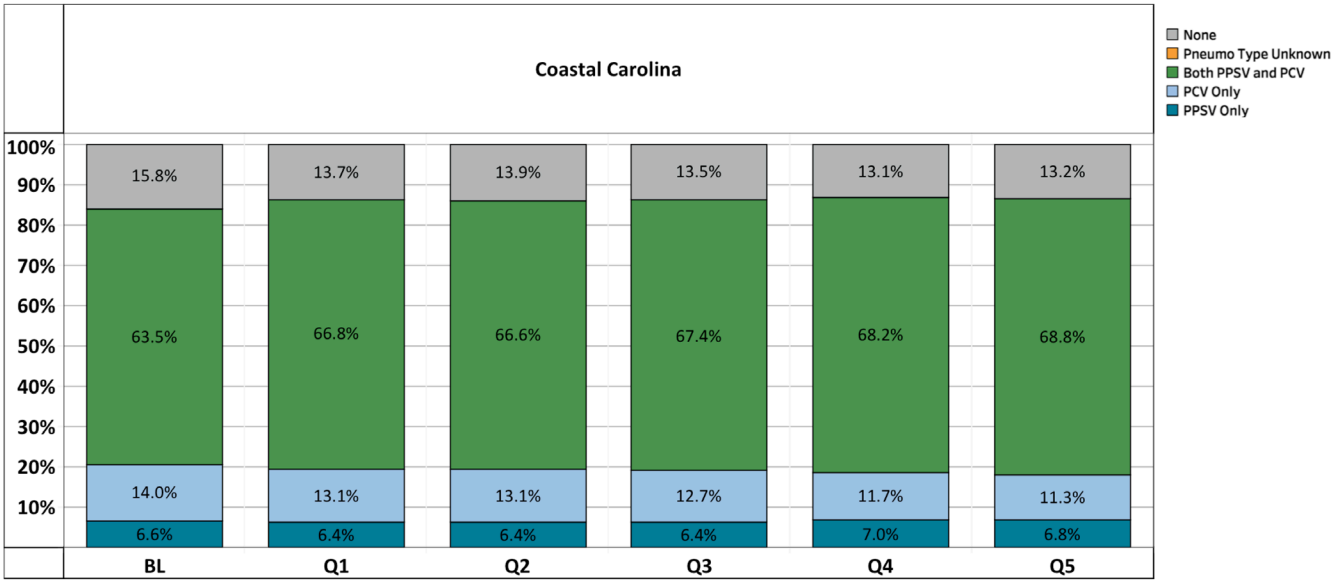
*** 70% for all patients, 90% for Medicare patients

Measure 1 – Pneumococcal (Any) Immunization for Adults Ages ≥ 65

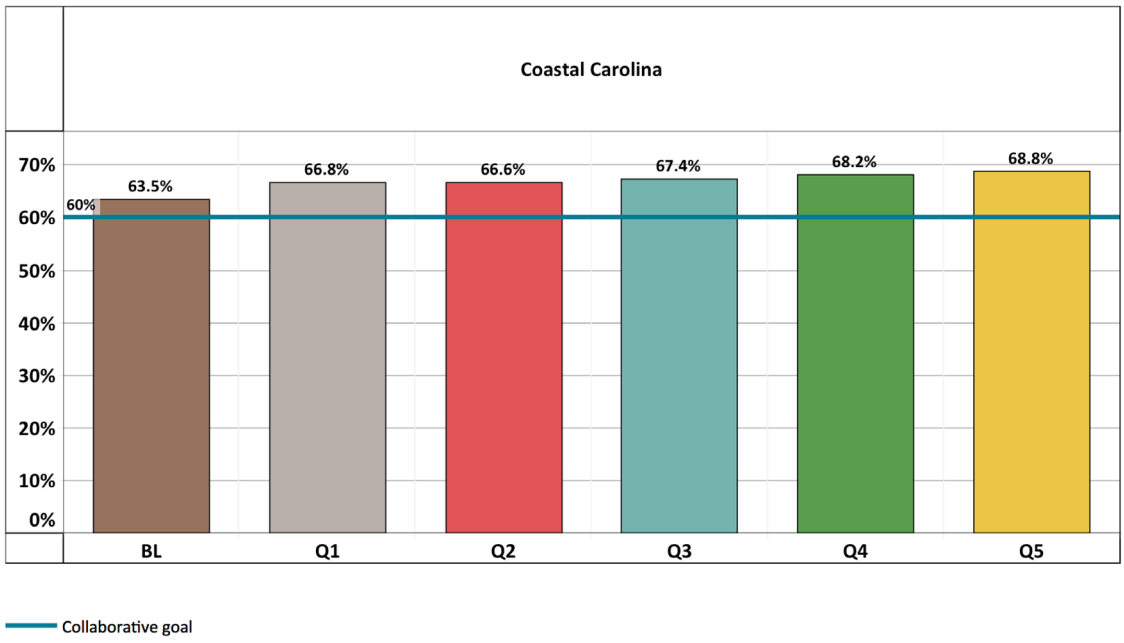


Appendix

Measure 1 – Pneumococcal (Any) Immunization for Adults Ages ≥ 65

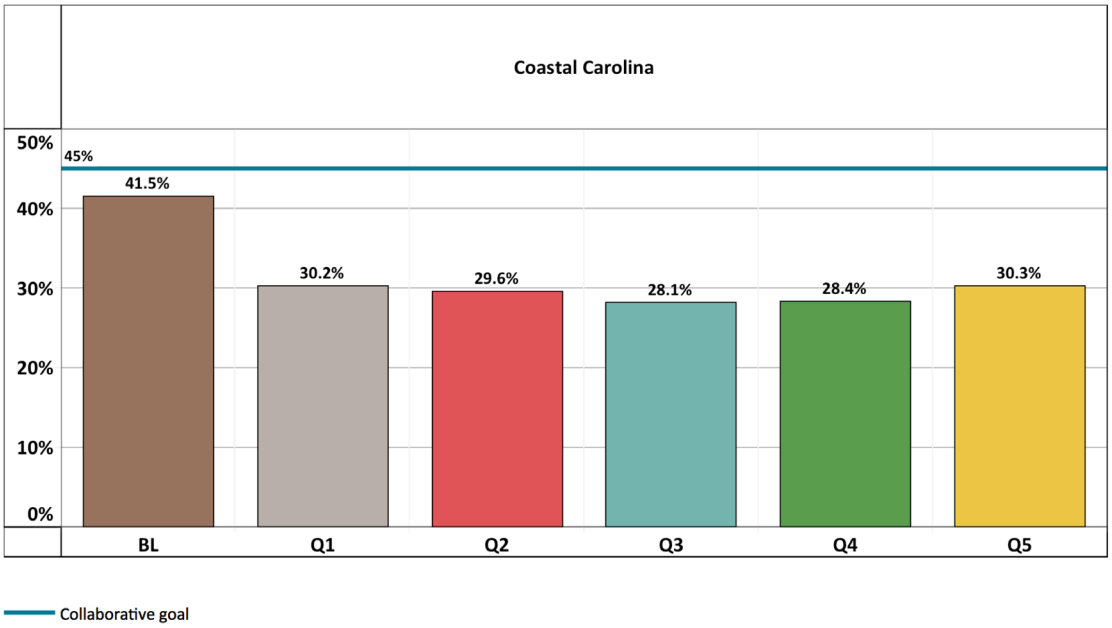


Measure 1 – Both PPSV and PCV Immunization for Adults Ages ≥ 65

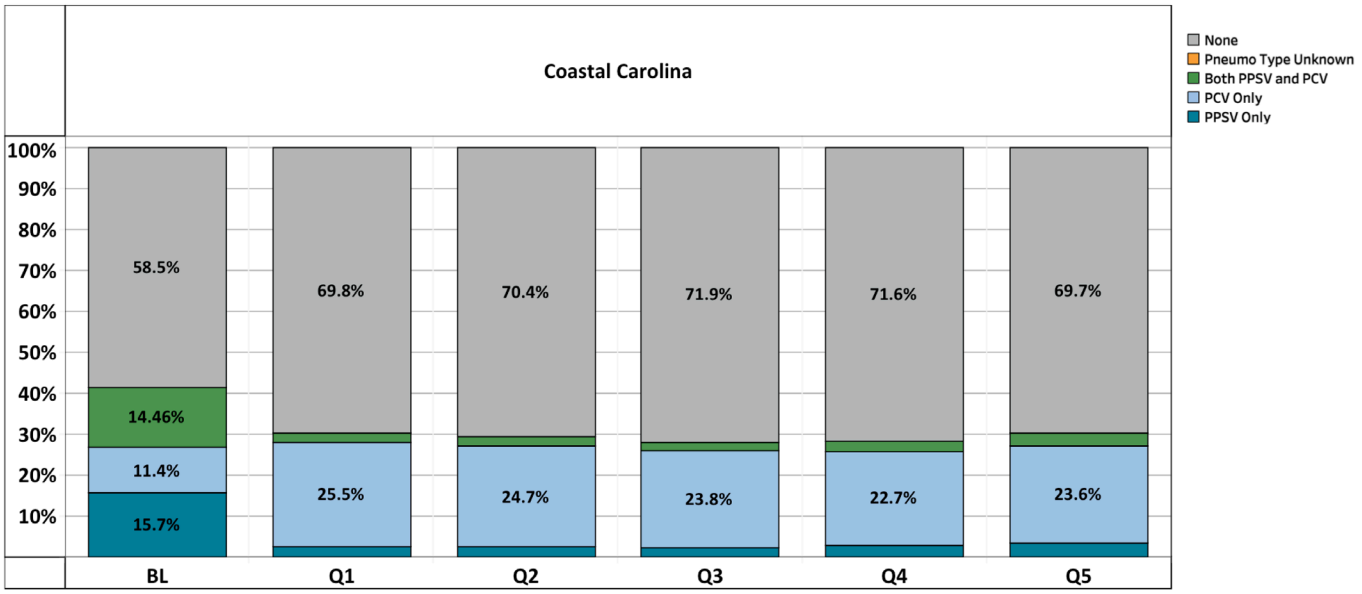


Appendix

Measure 2 – Pneumococcal (Any) Immunization for Adults Ages 19–64 with High-Risk Conditions

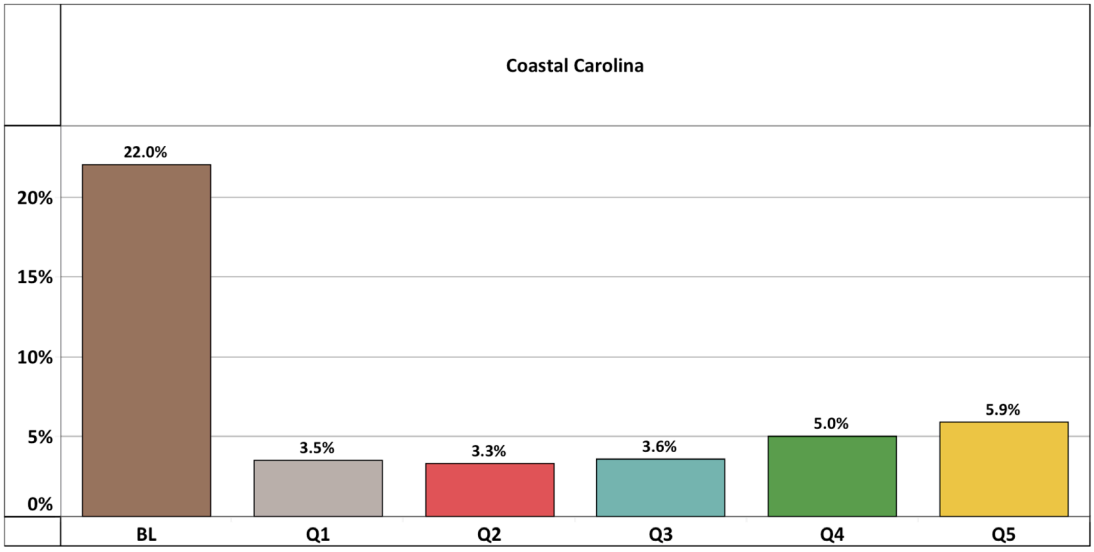


Measure 2 – Pneumococcal (Any) Immunization for Adults Ages 19–64 with High-Risk Conditions

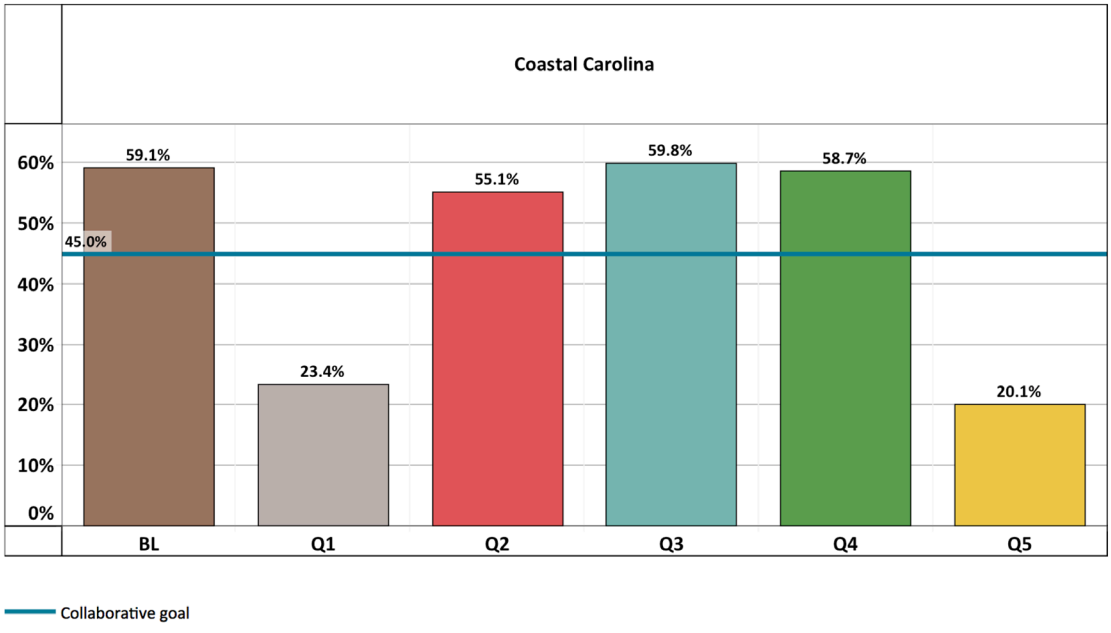


Appendix

Measure 2A – Pneumococcal (Any) Immunization for Adults Ages 19–64 with At-Risk Conditions



Measure 3 – Influenza Immunization, Age ≥ 18



Point-of-Care Dashboard: Immunization Status for Targeted Populations

Patient Dashboard

- Care Actions
- Health Goals
- Populations
- HCC Diagnosis Recapture
- Appointments

Care Actions

⛔	Prev	Zoster vaccination never administered	
✓	Prev	Bone density test performed since age 60	09/03/2015
✓	Prev	Colonoscopy up-to-date	10/03/2016
✓	Prev	CRC screening up-to-date	10/03/2016
✓	Prev	Current depression screening and follow-up plan documented if screening is positive	06/17/2016
✓	Prev	Fall risk screening up-to-date	06/17/2016
✓	Prev	Flu immunization given within current flu season	08/23/2016
✓	Prev	Hepatitis C screening performed	08/25/2016
✓	Prev	Mammogram up-to-date	09/01/2015
✓	Prev	Pneumonia vaccination given after age 65	08/25/2016
✓	Prev	Risk-Stratified LDL: Test up-to-date	08/25/2016
✓	Prev	Tdap/Td immunization up-to-date	07/02/2016

Health Goals

⛔	Prev	LDL ≥ 160 with no plan of care for low risk patient	188
⚠	Prev	BP: S ≥ 120 and < 140 and/or D≥ 80 and ≤90	136 / 78 mmH
✓	Prev	BMI healthy weight	27.97 kg/m2,
✓	Prev	Tobacco non-user	08/12/2015
✓	Prev	No chronic conditions	Disease RAF

Populations

No results found.

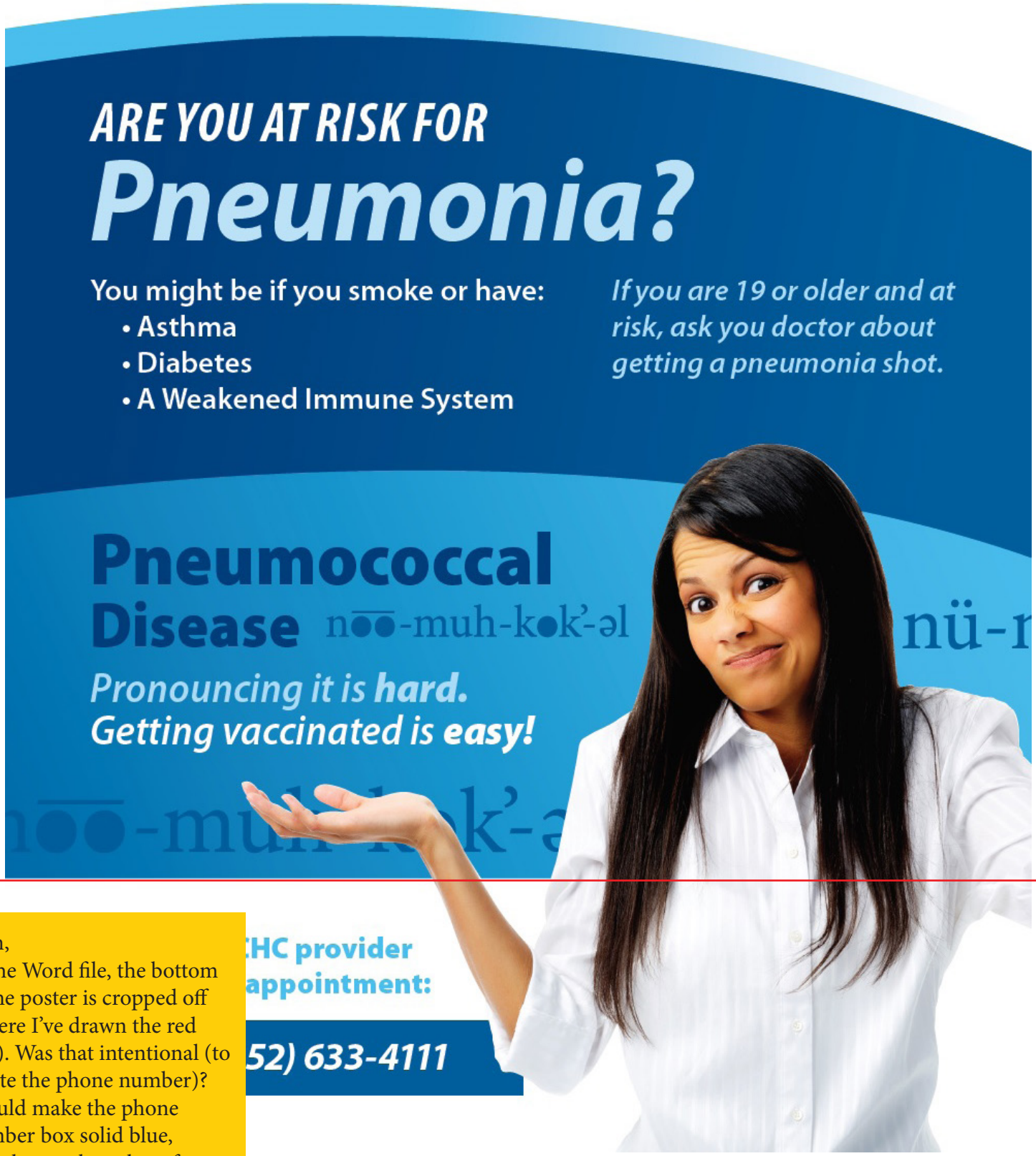
HCC Diagnosis Recapture

No results found.

Appointments

Next appointment of type PEAD on 06/27/2017 at 2:00 PM with

Patient Education: Pneumococcal Poster



Tom,
In the Word file, the bottom of the poster is cropped off (where I've drawn the red line). Was that intentional (to delete the phone number)? I could make the phone number box solid blue, and change the colon after appointment to a period.

Tom,
The three people on the left are distorted in the photo – looks like they are compressed or something. Do you still want to include it?

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