Webinar description
This webinar will serve as the project kickoff for participating FQHCs. It will provide attendees with information about the Pneumonia Knockout Campaign, an overview of pneumococcal pneumonia and vaccination standards, and next steps in the project.

Learning objectives
At the end of this activity, attendees will:
1. Understand the burden of pneumonia mortality in North Carolina.
2. Understand the pneumococcal pneumonia vaccination standards.
3. Understand the next steps in participation in the project.
Agenda

• Welcome/introductions

• Pneumonia Knockout Campaign overview - Trish Vandersea, NCHA

• Pneumococcal pneumonia vaccination standards review - Laura Edwards, CHS

• FQHC project overview - Carey O'Reilly, NCCHCA and Laura Edwards, CHS

• Question/Answer
6 FQHCs ~ 13 counties ~ 18 sites
Participating FQHCs and Counties

1. CommWell Health – Bladen, Sampson, Johnston
2. Mountain Community Health Partnership - Yancey, Mitchell
3. Ocracoke Health Center/Engelhard Medical Center – Hyde
4. Robeson Community Health Center – Robeson, Scotland, Columbus, Montgomery
5. Roanoke Chowan Community Health Center – Washington, Bertie
6. Stedman Wade Health Services - Cumberland
Pneumonia Knockout: Reducing Pneumonia Mortality and Readmissions in NC through Collective Action and Cross Continuum Partnerships

North Carolina Healthcare Association

Uniting hospitals, health systems and care providers for healthier communities
Pneumonia Knockout
Prioritizing Community Acquired Pneumonia in NC

Nationally NC is ranked 50th for Pneumonia Mortality

Trending – Dropped From 35th in 2015 to 49th in 2016 to 50th in 2017

Among top 10 causes of death in NC

Every year, approximately 1,700 people in North Carolina die from complications of pneumonia.

Pneumonia is most often acquired in the community, outside of the hospital setting.

73% of all NC hospitals are below the CMS national benchmark.
Pneumonia Patient Characteristics

Pneumonia Mortality by Age, 2015

Admitted through Emergency Department

Had Surgery
End of Life Utilization

Unique patients | 2,508
Discharges | 2,740

Number of Inpatient Discharges for Patients who Died from Pneumonia, 2016:
- 7.0% 1 discharge
- 1.0% 2 discharges
- 0.1% 3 discharges
- 91.9% 4 discharges

Race of Patients who Died from Pneumonia, 2016:
- American Indian or Alaska Native: 0%
- Asian: 0%
- Black or African American: 20%
- Other: 40%
- White: 60%

Payer Type, Patients who Died from Pneumonia, 2016:
- Self Pay: 0%
- Commercial: 20%
- Medicaid: 40%
- Medicare: 60%
- Other: 80%

Days from Discharge to Death for Patients who Died from Pneumonia, 2016:
- 1-14: 450
- 15-30: 350
- 31-45: 250
- 46-60: 150
- 61-75: 50
- 76-90: 0
The actual location of death is not available; however, this is the discharge location for patients who died within 30 days – may be a pretty good proxy
Pneumonia Mortality by County

Number label indicates total cases by county in 2016. Color indicates performance compared to national benchmark on mortality – red is worse, green is better.
According to 2016 data from the Behavioral Risk Factor Surveillance System, only 23% of NC Medicare beneficiaries age 65 years old or older report they have received the CDC recommended regimen of BOTH PPSV23 and PCV13 pneumococcal vaccinations.
Pneumonia Knockout Campaign

In March 2017, the NCHA Board of Trustees approved a two-year Quality Goal to reduce pneumonia (PNE) mortality and readmission rates to put North Carolina at and below the national average. Specifically, the goal is to:

- **Reduce** PNE state mortality rate by 7.5% to the national average of 16.3% over 2 years
- **Reduce** PNE state readmissions by 5.4% over 2 years to target top 25% quartile of the nation

The Board’s approval of this goal signifies an organizational commitment to guide this work and a call to NCHA’s 117 member hospitals and health systems statewide to actively participate. **Currently have 94 hospitals participating**
Annual Impact
Reducing Pneumonia Mortality by 7.5%
  • 1000 NC Lives Impacted

Reducing Pneumonia Readmissions by 5.4%
  • 950 Readmissions Prevented
  • $8,835,000 Saved
Reaching Beyond the Hospital

Increasing Needs and Opportunities for Public Health Approach Across the Continuum of Care

- Acute Care Facility
- Outpatient/Ambulatory Facility
- Long Term Care Facility
- Public Health
- Home Care
Pneumonia Knockout Advisory Group

- Alliant Quality
- Blaze Advisors
- Blue Cross Blue Shield
- Collaborative Health Solutions
- Cone Health System
- Consulate Health Care
- DHHS, Communicable Disease Branch
- DHHS, Division of Aging & Adult Services
- Liberty Healthcare & Rehabilitation Services
- Margaret R Pardee Memorial Hospital
- Merck
- Mission Health System
- NC Association of Pharmacists
- NC BAM (Baptist Aging Ministry)
- NC Case Management Association
- NC Community Health Care Association
- NC Healthcare Facilities Association
- NC Immunization Coalition
- NC Independent Respiratory Therapy/Genesis Health Care
- NC Medical Society
- Pender Memorial Hospital
- Pfizer Inc.
- The Carolinas Center for Hospice & End of Life Care
- Vidant Health- Vidant Roanoke Chowan
- Walgreens
- Well Care Home Health
83% of NC hospitals and healthcare systems have taken the Pneumonia Knockout pledge to reduce pneumonia mortality and pneumonia readmissions.

Collective Action for Performance Improvement

Top Causal Factors: Pneumonia Mortality

- Inaccurate coding of Pneumonia for Inpatient Admissions
- Lack of coordinated care cross continuum post discharge
- Lack of standardized treatment protocols for patients with Sepsis and Pneumonia
- Need for public awareness of prevention, signs/symptoms of Pneumonia, early treatment and post care
PNE Advisory Group Recommendations

- Cross Continuum Strategy
- Provider and Patient Education
- Public Campaign
- Care Coordination
- Operational Excellence
- Prevention
- Clinical Quality Improvement
Pneumonia Knockout
2018 Targeted Improvement Strategy Areas

- Increase Public Awareness on Importance of Pneumococcal Vaccinations
- Increase Healthcare Provider Education on Pneumococcal Vaccinations
- Develop Clinical Guidelines and Standardization Around Pneumonia Care- care pathways, ABS
- Improve Clinical Coding and Documentation
- Launch Readmission Aspire webinar and develop NC Playbook
Pneumococcal Immunization Campaign

- Increase awareness, sign/symptoms & post care treatment of pneumonia and provide education on the importance of vaccination
- Targeted outreach in 9 counties with lowest immunization rates in NC
- Strategic partnerships with Federally Qualified Health Centers
- [https://www.healthiertomorrownc.com/pneumonia-knockout](https://www.healthiertomorrownc.com/pneumonia-knockout)
Who Pneu?

Even healthy adults as young as 50 are at increased risk for pneumococcal pneumonia, a serious lung infection that is potentially life-threatening.

Symptoms, like difficulty breathing, chest pain, fatigue, and cough, can even put you in the hospital—in fact, the average stay for those requiring hospitalization is approximately six days.

50 or older? Your risk of being hospitalized after getting pneumococcal pneumonia is 8X greater than younger adults (18-49).

Don’t be caught off guard. Explore our website to learn more about your personal risk for pneumococcal pneumonia.
NCMS Joins in Pneumonia Knockout Campaign

The North Carolina Medical Society (NCMS), the North Carolina Hospital Association (NCHA), and a variety of health care stakeholders have joined forces to reduce North Carolina’s annual pneumonia mortality rates. Our state currently ranks 49 out of 50 states for mortality due to pneumonia.

The NCQA Quality Center, with help from an Advisory Council, will provide hospitals, health systems and other stakeholders with technical support, education, best practice learning and sharing and a public education campaign to reduce the mortality rate by 7.5 percent over the next two years. Learn more about the Pneumonia Knockout Campaign. World Pneumonia Day is Nov. 12, and serves as a reminder that pneumonia is a leading killer of children around the world. Learn more about this international awareness-raising movement.

Keep in mind the CDC recommends pneumococcal vaccination for all adults 65 years or older. Use the resources below to educate your patients on the need for vaccination.

Resources for your patients:
- Patient Commercial
- Are you at risk? Take the assessment
- Protect yourself from pneumococcal disease...get vaccinated
- Patient Brochures
- Patient Info/Spanish
- 5 Questions To Ask Your Doctor
- 5 Facts You Should Know About Pneumonia
- Pneumococcal Vaccine Timing for Adults - Pocket Guide
- Immunization Action Coalition

Practice prevention to knock out pneumonia in Wilson

Thank you for being one of the first steps towards. Please consider supporting community partners by subscribing to the Wilson Times.

For more information, please visit:
- Wilson Medical Center
- Wilson Times

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State and Community Partnerships
Strategic Partnerships

- AARP January 2018 Bulletin
- Importance of Physician Champions
- Working together to improve public awareness on importance of pneumococcal vaccinations in NC.

**Had Your Pneumonia Shots Yet?**

*Posted on 01/01/2018 by TheAARPBulletin | AARP North Carolina*

Thomas Koinis, M.D. chats with patient Thomas Hamilton after giving him a pneumonia vaccination at Duke Primary Care in Oxford. Photo by Travis Dove.

**By Michelle Crouch**

Julia McLean, 70, knew it was time to get a second pneumonia vaccination. Her doctor had reminded her, but the holidays were coming, so she decided to put it off.

That turned out to be a mistake. In early 2017, McLean came down with pneumonia.

“It was horrible,” said McLean, who lives in Charlotte. “I was really, really sick for three weeks. I felt terrible, I had no energy, and it seemed like it took forever to get rid of it.”

McLean said her story should be a lesson for older people: Don’t put off getting your shots.
Knockout Pneumonia!
Pneumonia Knockout Campaign
FQHC Project
Pneumococcal Immunization Campaign

- Increase awareness, sign/symptoms & post care treatment of pneumonia and provide education on the importance of vaccination
- Targeted outreach in 9 counties with lowest immunization rates in NC
- Strategic partnerships with Federally Qualified Health Centers
- https://www.healthiertomorrownc.com/pneumonia-knockout
Pneumonia Knockout
2018 Targeted Improvement
Strategy Areas

- Increase Public Awareness on Importance of Pneumococcal Vaccinations
- Increase Healthcare Provider Education on Pneumococcal Vaccinations
- Develop Clinical Guidelines and Standardization Around Pneumonia Care pathways, ABS
- Improve Clinical Coding and Documentation
- Launch Readmission Aspire webinar and develop NC Playbook

FQHC project
OVERVIEW OF PNEUMOCOCCAL PNEUMONIA AND REVIEW OF VACCINATION STANDARDS

Laura Edwards, RN, MPA
Collaborative Health Solutions
• Pneumococcal pneumonia is caused by *Streptococcus pneumoniae*, a common bacteria that can be spread from person to person through cough or touch. These bacteria can cause part of the lung to become inflamed and fill up with mucus, making it harder to breathe.

• Pneumococcal pneumonia symptoms can appear quickly and can be severe. For some people, certain symptoms like cough and fatigue can last for weeks or longer—even after treatment with antibiotics.

• Many people think of pneumonia as an illness that only the elderly or sick people get in the hospital. That’s not always true. Pneumococcal pneumonia is a bacterial lung infection you can catch anywhere, anytime. Even healthy adults 65 or older are at increased risk.

Source: Pfizer Prevnar13 http://www.adult.prevnar13.com
PNEUMOCOCCAL PNEUMONIA

Symptoms are distinct, can appear quickly, and may include:

- Chest pain with difficulty breathing
- A high fever, shaking chills
- Excessive sweating
- Fatigue
- A cough with phlegm that persists or gets worse

Source: Pfizer Prevnar13 http://www.adult.prevnar13.com
Age and risk are related. Over time, the immune system weakens and can’t respond as quickly to infection. This makes it more difficult to defend against pneumococcal disease.

Even those who are active and healthy may be at increased risk for pneumococcal pneumonia. After age 65, the risk of being hospitalized after getting pneumococcal pneumonia is 13X greater than younger adults aged 18 to 49.

Other factors like lifestyle and certain chronic conditions like COPD, asthma, heart disease and diabetes, could increase the risk for pneumococcal pneumonia.

Source: Pfizer Prevnar13 http://www.adult.prevnar13.com
The Pathogen and its Transmission

- Polysaccharide capsule is a primary virulence factor\textsuperscript{1,2}
- >90 known capsular types (serotypes)\textsuperscript{1,2}
- Serotype-specific antibody is protective\textsuperscript{1,2}
- Individual serotypes may demonstrate variable clinical impact\textsuperscript{2}

Streptococcus pneumoniae

Transmission via respiratory droplets, autoinoculation\textsuperscript{1,2}

Nasopharyngeal colonization

Asymptomatic colonization or Pneumococcal disease


Acknowledgement: Slide provided by Merck
Key Clinical Manifestations of Pneumococcal Disease in Adults ≥18 Years of Age\textsuperscript{1,2,a,b}

Pneumococcal Disease Distribution and Estimates

- **Pneumonia**
  - 345,000 cases (inpatient)
  - 256,000 cases (outpatient)

- **Bacteremia**
  - 11,000 cases

- **Meningitis**
  - 2,700 cases

\textsuperscript{a}These data are from 2004 and do not account for the effect that PCV13 has had on the burden of pneumococcal disease in adults and continued use of PPSV23. Consequently, these data may not provide a precise estimate of the burden of disease in adults.\textsuperscript{2}

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\textsuperscript{1}Based on 2004 data from the Centers for Disease Control and Prevention (CDC) Active Bacterial Core surveillance, national health care utilization data, existing literature, and expert panel opinion.

PCV13=13-valent pneumococcal conjugate vaccine; PPSV23=23-valent pneumococcal polysaccharide vaccine.


Acknowledgement: Slide provided by Merck
The Rate of Pneumococcal Disease Increases With Age and Certain Chronic Conditions

![Graph showing the incidence rate of IPD and pneumococcal pneumonia with age and chronic conditions.](image)

**Incidence Rate of IPD**
- United States, 2006–2010
  - Chronic lung disease: ~7X rate
  - Chronic heart disease: ~3X rate
  - Diabetes: ~3X rate

**Incidence Rate of Pneumococcal Pneumonia**
- United States, 2006–2010
  - Chronic lung disease: ~9X rate
  - Chronic heart disease: ~4X rate
  - Diabetes: ~3X rate

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**Acknowledgement:** Slide provided by Merck

**Notes:**
- IPD = invasive pneumococcal disease.
- Retrospective cohort study using data from January 1, 2006 through December 31, 2010 from 3 health care claims databases representing >35 million insured adults.
- Excludes bacteremic cases.
IMMUNIZATIONS FOR PREVENTION OF PNEUMOCOCCAL DISEASE

• Two immunizations for prevention of pneumococcal disease

• PNEUMOVAX 23® is a vaccine indicated for active immunization for the prevention of pneumococcal disease caused by the 23 serotypes contained in the vaccine (1, 2, 3, 4, 5, 6B, 7F, 8, 9N, 9V, 10A, 11A, 12F, 14, 15B, 17F, 18C, 19F, 19A, 20, 22F, 23F, and 33F). PNEUMOVAX 23 is approved for use in persons 50 years of age or older and persons aged ≥2 years who are at increased risk for pneumococcal disease. Manufactured by Merck.

• PREVNAR 13® is a vaccine approved for adults 18 years of age and older for the prevention of pneumococcal pneumonia and invasive disease caused by the 13 Streptococcus pneumoniae strains included in the vaccine. Manufactured by Pfizer.
Serotypes Contained in the 2 Pneumococcal Vaccines

PNEUMOVAX®23 (Pneumococcal Vaccine Polyvalent) has 11 unique serotypes, whereas PCV13 has 1 unique serotype\(^1,2\)

PCV13=13-valent pneumococcal conjugate vaccine.
Brands mentioned are the trademarks of their respective owners.

Acknowledgement: Slide provided by Merck
Sequential Administration and Recommended Intervals for Immunocompetent Adults Aged ≥65 Years\(^1,2, a, b\)

**Pneumococcal vaccine-naïve persons aged ≥65 years**

- PCV13 at age ≥65 years
- ≥1 year
- PPSV23

**Persons who previously received PNEUMOVAX 23**

- PPSV23 already received at age ≥65 years
- ≥1 year
- PCV13

- PPSV23 already received at age <65 years
- PCV13 at age ≥65 years
- ≥1 year
- PPSV23

≥1 year
≥5 years
≥1 year

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PCV13 = 13-valent pneumococcal conjugate vaccine; PPSV23 = 23-valent pneumococcal polysaccharide vaccine; PNEUMOVAX\(^2\) 23 (Pneumococcal Vaccine Polyvalent).

\(^a\) A dose of PNEUMOVAX 23 is given earlier than the recommended interval, the dose need not be repeated.

\(^b\) PNEUMOVAX 23 and PCV13 should not be co-administered.


Acknowledgement: Slide provided by Merck
Sequential Administration of Pneumococcal Vaccines

- There are limited data on the sequential administration of PNEUMOVAX*23 (Pneumococcal Vaccine Polyvalent) with other vaccines, including PCV13.
- An immunogenicity study described in the Prescribing Information for PCV13 evaluated the sequential administration of PNEUMOVAX 23 with PCV13 in adults 60–64 years of age:¹

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PCV13=13-valent pneumococcal conjugate vaccine; PPSV23=23-valent pneumococcal polysaccharide vaccine.


Acknowledgement: Slide provided by Merck
Pneumococcal Vaccine Timing for Adults

Make sure your patients are up to date with pneumococcal vaccination.

Two pneumococcal vaccines are recommended for adults:
- 13-valent pneumococcal conjugate vaccine (PCV13, Prevnar13®)
- 23-valent pneumococcal polysaccharide vaccine (PPSV23, Pneumovax23)

PCV13 and PPSV23 should not be administered during the same office visit.
When both are indicated, PCV13 should be given before PPSV23 whenever possible.
If either vaccine is inadvertently given earlier than the recommended window, do not repeat the dose.

One dose of PCV13 is recommended for adults:
- 65 years or older who have not previously received PCV13.
- 19 years or older with certain medical conditions and who have not previously received PCV13. See Table 1 for specific guidance.

One dose of PPSV23 is recommended for adults:
- 65 years or older, regardless of previous history of vaccination with pneumococcal vaccines.
  - Once a dose of PPSV23 is given at age 65 years or older, no additional doses of PPSV23 should be administered.
- 19 through 64 years with certain medical conditions.
  - A second dose may be indicated depending on the medical condition. See Table 1 for specific guidance.

Pneumococcal vaccine timing for adults 65 years or older

For those who have not received any pneumococcal vaccines, or those with unknown vaccination history

PCV13
(at ≥ 65 years)

At least 1 year apart for most immunocompetent adults
At least 6 weeks apart for adults with certain medical conditions

PPSV23
(at ≥ 65 years)

- Administer 1 dose of PCV13.
- Administer 1 dose of PPSV23 at least 1 year later for most immunocompetent adults or at least 8 weeks later for adults with immunocompromising conditions, cerebrospinal fluid leaks, or cochlear implants. See Table 1 for specific guidance.

For those who have previously received 1 dose of PPSV23 at ≥ 65 years and no doses of PCV13

PPSV23
(at ≥ 65 years)

At least 1 year apart for all adults

PCV13
(at ≥ 65 years)

- Administer 1 dose of PCV13 at least 1 year after the dose of PPSV23 for all adults, regardless of medical conditions.

www.cdc.gov/pneumococcal/vaccination.html
Let’s Get Started!
PKC FQHC Project

Working together in a quality improvement project to increase pneumococcal pneumonia vaccination rates in persons age 65 years and older.

- Participating as partners in reaching this Quality Goal.
- Supporting public education efforts in the FQHC setting.
- Committing to activities supporting the campaign.
PKC FQHC PROJECT

Each FQHC will lead its improvement efforts, supported by the partnership of the North Carolina Community Health Center Association, North Carolina Healthcare Association and Collaborative Health Solutions.

These partners will provide participating FQHCs with technical support, education and resources.

Collaborative Health Solutions will serve as the lead consultant.
**2018 Timeline**

- **January/February**  Recruitment of FQHCs for participation
- **March**  Orientation to the Campaign and FQHC’s complete pre-project assessment
- **April**  FQHCs participate in Pneumonia Knockout webinar and identify population health improvement quality improvement processes and measurement strategies
- **May**  FQHCs initiate implementation of 3 population health quality improvement processes
- **June – September**  Continued implementation of population health quality improvement processes
- **October**  Gather data on measurement of activities
- **November**  Measurement activities reported, participation in project wrap-up webinar, and completion of post-project survey
ACTIVITIES

FQHCs will implement 3 population health process improvement activities. These may include (but are not limited to):

- Implementation of standing orders
- Use of screening tools at check-in to determine whether patient needs pneumococcal vaccination
- Inclusion of prompts, flags, notations or standardized checklists in charts and EMRs
- Display educational materials in offices to prompt patients to ask about vaccination during their visit
- Educate patients through websites, newsletters, and on hold/voicemail scripts or other communications
- Engage multiple professionals in vaccination activities
- Host pneumococcal vaccination clinics
- Encourage use of state immunization registry
EVALUATION MEASURES

OVERALL

• How many pneumococcal pneumonia vaccines were given to patients 65 years and older during May-October 2017?
• How many pneumococcal pneumonia vaccines were given to patients 65 years and older during May-October 2018?
• Did your site(s) implement an improvement process during May-October 2018?
• Which improvement processes were implemented during May-October 2018?
  • Implementation of standing orders
  • Use of screening tools at check-in to determine whether patient needs pneumococcal vaccination
  • Inclusion of prompts, flags, notations or standardized checklists in charts and EMRs
  • Display educational materials in offices to prompt patients to ask about vaccination during their visit
  • Educate patients through websites, newsletters, and on hold/voicemail scripts or other communications
  • Engage multiple professionals in vaccination activities
  • Host pneumococcal vaccination clinics
  • Encourage use of state immunization registry
  • Other__________________________________
EVALUATION MEASURES

ACTIVITY SPECIFIC

• Did your site(s) implement standing orders or revise existing standing orders?
• What screening tools were implemented at check-in to determine need for pneumococcal vaccine?
• What prompts, flags, notations or standardized checklists were included in charts/EMRs?
• Did the displayed education materials prompt patients to ask about vaccination during their visit? How many?
• Did patient education on websites, newsletters, phone scripts or other communications prompt patients to ask about vaccination? How many patients?
• What professionals were engaged in vaccination activities?
• How many pneumococcal vaccination clinics were held? Where? How many vaccines were given?
• Did you document pneumococcal vaccines administered in the state immunization registry (NCIR)? How many?
**NEXT STEPS**

Assemble your QI team and complete project start up processes
(ex. aim statement, process mapping, administrative buy-in, potential barriers to success, identification of provider champion)

Gather and interpret baseline data

Identify 3 activities

Identify data/methods for evaluation of activities

Implement

Monitor

Evaluate
We are here to help you!

Trish Vandersea, NCHA  
Carey O’Reilly, NCCHCA  
Marti Wolf, NCCHCA  
Laura Edwards, CHS

Laura is the main point of contact for the project. She will act as liaison and help coordinate resources, expertise, etc.

Laura.Edwards@collaborativehealthsolutions.org  
919-802-6611
RESOURCES

NCHA Pneumonia Knockout Campaign
https://www.healthiertomorrownc.com/pneumonia-knockout

CDC Pneumococcal pneumonia vaccination page
https://www.cdc.gov/vaccines/vpd/pneumonia/index.html
RESOURCES

- NCHA Pneumonia Knockout Campaign  https://www.healthiertomorrownc.com/pneumonia-knockout

  The AIM Adult Immunization Resource Guide characterizes a selection of the varied activities and strategies that Immunization Programs have employed to enhance and improve the delivery of immunizations to adults.

- The Adult Vaccine Quiz  https://www2.cdc.gov/nip/adultimmsched/  Adults need vaccines too. Take the quiz to find out which vaccines you may need.

- CDC Adult Vaccination Schedule  https://www.cdc.gov/vaccines/schedules/easy-to-read/adult.html#print
  This 2018 schedule summarizes the Advisory Committee on Immunization Practices (ACIP) recommendations for currently licensed vaccines for adults 19 years and older. The specific vaccinations you need as an adult are determined by factors such as your age, lifestyle, health and risk conditions, type and locations of travel, and previous immunizations.

- CDC Pneumococcal pneumonia vaccination page  https://www.cdc.gov/vaccines/vpd/pneumo/index.html
  Contains basic information everyone should know, and information for health care professionals

- CDC site for general adult vaccination information, including pneumococcal.  https://www.cdc.gov/vaccines/adults/vpd.html
RESOURCES

- CDC print materials available for download.  
  https://www.cdc.gov/pneumococcal/resources/print.html

- Pfizer website.  https://www.knowpneumonia.com/


- Pfizer facts about pneumonia.  

- Pfizer pneumococcal website.  https://www.pfizer.com/health/vaccines/areas-of-focus/Pneumococcal-Disease


Case Study: Implementing A Team Approach in Primary Care Practices

17 Primary Care Practices:
American College of Physicians Quality and Practice Improvement Network, 2009–2010

Team Approach
- Physician
- Office manager
- Front office staff
- Nurse or other allied health professional

Practice team
- Includes a practice champion

Clinical decision support tools
- Checklists
- Standing orders
- Computer-based reminders

Pre- and post-intervention pneumococcal vaccination rates among adult patients at increased risk
- Results showed statistically significant improvements in pneumococcal vaccinations for patients with:
  - Chronic lung disease (73.8%, 89.7%; P ≤ 0.01)
  - Diabetes (55.6%, 68.8%; P ≤ 0.01)
  - Heart disease (56.3%, 85.3%; P ≤ 0.01)

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Acknowledgement: Slide provided by Merck
Meta-Analysis of Interventions That May Help Improve Adult Pneumococcal Vaccination Rates\textsuperscript{1,a}

- Interventions that approximately doubled the likelihood for pneumococcal vaccination included:
  - Team approach
    - Nurse vaccine administration
    - Multidisciplinary team
  - Provider reminders
    - Reminder systems for vaccination/preventive care
    - Reminders generated from patient medical history (e.g., EHR)
  - Patient outreach
    - Office brochures
    - Telephone reminders
    - Waiting/examination room posters
    - Patient-held preventive care checklists

\textsuperscript{1} Electronic health record.
\textsuperscript{a} Meta-analysis of 48 comparisons from 35 studies of interventions to improve pneumococcal vaccination rates among community-dwelling adults.


Acknowledgement: Slide provided by Merck
Strategies at Patient Encounter

Research shows that when patients receive a vaccine recommendation and are **offered the vaccine at the same time** they are more likely to get vaccinated.¹

- **CDC standards for adult vaccination:**²
  - **ASSESS** vaccination status of all patients at every clinical encounter
  - Clearly **RECOMMEND** vaccines that are indicated
  - **ADMINISTER** recommended vaccines or **REFER** to a provider who can vaccinate
  - **DOCUMENT** vaccines received by your patients

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Acknowledgement: Slide provided by Merck
Questions?
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