A. Cover Page

Title

Ethnic Communities Pneumococcal Vaccination Collaborative: Replicating a Successful Model in Los Angeles County

Collaborators

California Medical Association Foundation, California Medical Association, Los Angeles County Medical Association, José Arévalo, MD, FAAFP

Abstract

Goal: The overall goal is to address local obstacles that limit eligible adult patients from receiving pneumococcal vaccination among communities of color and the providers that serve them, thus increasing the number of Los Angeles County residents who are vaccinated. The long-term goal is to improve the health and well-being of communities of color and reduce healthcare costs.

Target population: The CMA Foundation will target physician practices serving communities of color in Los Angeles County.

Assessment: Between 2009-2014, incidence of invasive pneumococcal disease (IPD) in LA County has been decreasing from a high of 785 cases in 2009 down to 460 cases in 2014. While this reduction is highly commendable, **key health inequities remain.** Black residents in LA were over 50% more likely than white residents to experience an IPD. In 2011, pneumococcal vaccination coverage rates in LA County were 61.3%, compared to the national average of 69.3%. Women of color had much lower rates of pneumococcal vaccination compared to white women. In a local needs assessment on barriers to pneumococcal immunizations conducted by the CMA Foundation and its partners, patient-level barriers included a lack of perceived threat of vaccine preventable diseases and vaccine safety concerns. The key needs around pneumococcal vaccination in LA County thus reflect national trends in health inequities that place racial/ethnic minorities and low income individuals at greatest risk for morbidity and mortality. The CMA Foundation will form a collaborative to recruit, train, guide, and support ten private practices to implement and evaluate the NJAFP model.

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C. Main Section

1. Current Assessment of Need in the Target Area

Pneumococcus are bacteria that can cause life-threatening illnesses including pneumonia, as well as Invasive Pneumococcal Diseases (IPD) bacteremia and meningitis. The Centers for Disease Control and Prevention (CDC) estimate about 900,000 people living in the US contract pneumococcal pneumonia each year, with 5-7% resulting in death.[1,2] In terms of IPD, there were 2,700 reported cases in 2014, with black residents at a rate 50% higher than white residents.[3] Based on data from 2004, researchers estimate that pneumococcal disease caused 22,000 deaths, 445,000 hospitalizations, 4.1 million outpatient antibiotic prescriptions and $3.5 billion in direct medical costs.[4] These data highlight the substantial morbidity, mortality and financial costs associated with these vaccine-preventable diseases.

There are two vaccines that can help prevent pneumococcal diseases - the pneumococcal conjugate vaccine (PCV13) and the pneumococcal polysaccharide vaccine (PPSV23). The Advisory Committee on Immunization Practices (ACIP) currently recommends that all adults 65 years and older, as well as those 2 years and older who are at high risk for pneumococcal disease because of underlying medical conditions, receive a dose of PCV13 and a dose of PPSV23.[5] Recommended intervals and order between PCV13 and PPSV23 given in series differ by age and risk group,[6] making it a relatively complex set of recommendations.

IPD Disease Rates and Vaccination Coverage

While invasive pneumococcal diseases (IPD) have not been reportable on a state level in California,[7] IPD is reportable in Los Angeles County. Between 2009-2014, incidence of IPD in LA County has been decreasing from a high of 785 cases in 2009 down to 460 cases in 2014.[8] The health department describes this decrease as being largely attributable to high coverage rates of the new PCV13 vaccine. While this reduction is highly commendable, **key health inequities remain**. Black residents in LA were 50% more likely than white residents to experience an IPD (8.9 cases per 100,000 compared to 5.8, respectively).[9] In terms of geographic areas, Service Planning Area 6 (South LA, which includes Athens, Compton, Crenshaw, Florence, Hyde Park, Lynwood, Paramount, and Watts) had the highest incidence rate of 5.8 cases per 100,000 compared to the overall city rate of 4.87.[10] This area has a historically high number of Latinos and African Americans, as well as high numbers of individuals with low income and lack of access to care, which may contribute to the increased morbidity rate.

While pneumococcal vaccination coverage rates in California are close to national rates, **coverage rates in LA County are much lower, and well below the Healthy People 2020 target**. On a state level, 2014 data indicate that only 33% of high risk adults between 18-64 years were covered; 70% of those 65 or older were covered.[11] In 2011, the Los Angeles County Health Survey (LACHS) data indicate that 61.3% of adults aged 65 years and older had received a pneumococcal immunization (Table 1 on the following page).[12] This rate varied (53.9% to 64.1%) across geographic boundaries known as Service Planning Areas (SPAs) within the

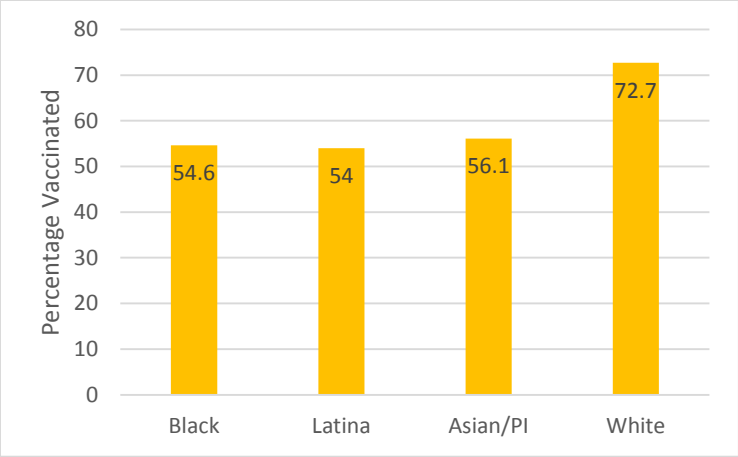
County, with the south region having the lowest rates.[13] These geographic trends in vaccination coverage are mirrored in the health outcome inequities described above.

Table 1. Pneumococcal Vaccination Coverage Rates among those 65+ years, 2011

% Coverage	
HP 2020 Target	90%
National	69.3%
LA County	61.3%

While local data on pneumococcal vaccination coverage are limited in terms of subpopulations, data available indicate racial/ethnic disparities. Based on a report by the Los Angeles County Office of Women's Health, women of color (age 65 years and older) had much lower rates of pneumococcal vaccination in comparison to white women (Figure 1).[14] Physicians and other health professionals have the opportunity to leverage the positive impact of pneumococcal vaccinations on IPD in the community at large to address the inequitable burden of disease among communities of color and the medically underserved in Los Angeles County. Collaborative efforts to reduce these racial/ethnic disparities in pneumococcal immunization remain a priority for Los Angeles County and would benefit from a multi-system approach.

Figure 1. Pneumococcal Vaccination Coverage among Women in LA County, 2011



In 2014, the CMA Foundation partnered with its Network of Ethnic Physician Organizations (NEPO), the Immunization Coalition of Los Angeles County and the Los Angeles County Department of Public Health Immunization Program to conduct a needs assessment with primary care and specialty physicians on adult immunization delivery services and practices in Los Angeles County. The assessment was designed to examine service delivery factors that can be addressed to impact the low levels of adult vaccination in the county, including pneumococcal vaccination. Findings indicated that cost-related barriers were most frequently cited by physicians who reported rarely or never recommending PPSV23 to patients. The highest rated patient-related barriers identified were patient refusal due to lack of awareness (51.6%); lack of a perceived threat of the disease (67.7%); and patient safety concerns (67.7%). Data revealed that difficulty assessing vaccine history (57.1%) and lack of proper refrigeration (27.4%) were the major barriers among those who did not routinely recommend this vaccine.

CMA Foundation hypothesizes that the New Jersey Academy of Family Physicians (NJAFP) model for improving adult immunization rates will improve pneumococcal immunization rates among communities of color and low income communities in LA County. **Based on a review of the NJAFP model and our recent needs assessment, we believe that the model reflects and addresses local patient and provider obstacles that limit eligible adult patients from receiving pneumococcal vaccination.** For instance, the model provides education on communications, coordination, and community partnerships for a patient-centered medical community. This is crucial to impacting the key barriers around patient safety concerns and difficulty determining immunization history.

The key needs around pneumococcal vaccination in LA County thus reflect national trends in health inequities that place racial/ethnic minorities and low income individuals at the greatest risk for morbidity and mortality. As such, CMA Foundation will work closely with its Network of Ethnic Physician Organizations (NEPO) to recruit and implement the NJAFP model to ten practices embedded in areas that primarily serve minority communities and communities struggling with poverty. CMA Foundation is committed to replicating the NJAFP model, including measuring the project's impact.

As such, the key objectives of the Ethnic Communities Pneumococcal Vaccination Collaborative are in line with the NJAFP model and are to:

- Increase adult pneumococcal immunizations by at least 12% in participating practices by implementing practice protocols to identify, address and overcome physician and patient barriers contributing to low immunization rates;
- Develop and expand activities across vaccine provider and healthcare settings to foster communication and coordination of adult pneumococcal immunization by creating a patient-centered medical community;
- Identify and implement interventions to address and overcome financial barriers for healthcare providers and patients related to adult pneumococcal vaccinations; and
- Disseminate previously developed information via publications and presentations, and an online Toolkit containing materials, resources and information to increase pneumococcal immunization rates, in addition to developing new materials based on the program and region.

2. Target Audience and Recruitment

Primary Audience: The Ethnic Communities Pneumococcal Vaccination Collaborative, led by the CMA Foundation, will target primary care practices that serve communities of color in Los Angeles County by engaging ten practices to participate in the year-long project. Specifically, eight of the ten practices will serve patients in Service Practice Areas 4 (Metro LA) and 6 (South LA). These are areas with the highest rates of IPD,[15] the lowest rates of preventative health services,[16] and have large communities of color.

Recruitment Plan: The CMA Foundation recognizes that project success is hinged on attracting, recruiting, and retaining practices that can be actively engaged in the project *and* have the

opportunity to improve immunization rates in the practices by at least 12%. The CMA Foundation will work with three collaborators to ensure recruitment and commitment of ten practices serving residents in our target areas: 1) the CMA Foundation's *Network of Ethnic Physician Organizations* (NEPO), consisting of over 50 physician organization members, many of whom are not typically members of organized medicine; 2) the Los Angeles County Medical Association, a membership organization of nearly 5,000 physicians in the LA county area; and 3) the California Medical Association (CMA), the largest physician association infrastructure in California with over 41,000 physician members, 15,585 being primary care physicians in the state including Family/General Practice, Internal Medicine, OB/GYN, and Pediatrics. The CMA Foundation originated in 1963 as a charitable organization of the California Medical Association and remains a close collaborator with CMA across many projects.

During the first month of the project, the CMA Foundation will develop targeted marketing materials that reflect the concerns and motivations of those working practices in our target area. Materials will include electronic and print flyers, presentations, newsletter and website articles, listserv blurbs and social media posts. Materials will describe the project, commitment, stipend and benefits to the practice and the community. Materials previously developed by NJAFP will be reviewed, tailored, and utilized for recruitment, as appropriate, for our target population.

During months two through three, the CMA Foundation will disseminate the above materials to our practice networks and our collaborators' practice networks. Through NEPO, we will work to partner with independent practice associations in LA, such as AltaMed, for additional physician outreach. Practice outreach will culminate in a recruitment workshop at the NEPO Conference in early September. We expect the first Live Learning Session to take place in late September. Live Learning Session locations will be easy to access by car and have adequate parking. In compliance with Pfizer IGLC policy, no funds from this grant will be used for food and/or beverage expenditures. In order to accommodate participants, food and beverage will be purchased from a separate budget.

Level of Commitment & Practice Screening: In order to meet the project objectives, the CMA Foundation will utilize a short, online application to assess potential practice-level outcomes among those interested in participating in the program. After reviewing applications, CMA Foundation will hold a teleconference with two members of the practice healthcare team (including the lead physician) to discuss practice stipends and the level of commitment, specifically confirming the following:

1. Commitment to ongoing and continuous engagement with the project and project partners;
2. Commitment to developing, implementing and evaluating new practice protocols to identify, address and overcome physician and patient barriers contributing to low immunization rates;
3. Commitment to providing effective staff training and monitoring that is required to implement new protocols;

4. Availability and commitment of the practice healthcare team (physician, nurse, office manager, medical assistant) to actively engage in all three Learning Sessions, action periods, coaching sessions, dissemination, and other activities across the year;
5. Commitment to engaging and recruiting appropriate community partners to participate in the project and specifically, the second Learning Session;
6. Commitment to assessing practice- and patient-level financial barriers to pneumococcal immunization and to develop and implement strategies to address these barriers;
7. Capability to use Electronic Health Records (EHR) for reporting;
8. Commitment to actively participate in ongoing evaluation to assess change in immunization rates.

Each practice will be expected to actively participate in all three Learning Sessions, action periods, immunization project implementation and evaluation activities, for the year-long project. A Letter of Agreement will be signed by the CMA Foundation President and the lead physician indicating and acknowledging the practice's commitment of time and resources for the project and payment terms for the practice stipend.

Additional Learning Experiences: The CMA Foundation, through the proposed Ethnic Communities Pneumococcal Vaccination Collaborative, will provide three learning activities in addition to the three live Learning Sessions and ongoing guidance, support, and management. These additional activities are designed to address specific needs identified in the CMA Foundation's recent needs assessment and include: 1) practice coaching sessions with a physician consultant, delivered quarterly; 2) community partner recruitment support; and 3) linkage to EHR resources and technical assistance, as needed.

1. Practice coaching sessions will be delivered by our physician consultant, José Arévalo, MD, FAAFP, in collaboration with the project manager. In order to provide guidance fitting the model, Dr. Arévalo will attend the NJAFP training and convocation, June 22, 2016 and June 21, 2017. Coaching sessions will be offered on a quarterly basis and delivered through teleconference.

2. The CMA Foundation's mission is to act as a bridge linking physicians to their communities. We will continue this role by supporting the ten participating practices in recruiting community partner organizations focusing on communications and partnerships to build a community focused on increasing pneumococcal immunizations. Depending on the needs of the practice, support may include identifying potential community organizations partners locally and developing or tailoring materials and messaging to engage potential partners.

3. In terms of EHR support, the CMA Foundation understands that effective and meaningful use of EHRs is essential to meeting the project goals. As such, the project will work closely with practices to identify EHR technical assistance and resource needs and link the practices to relevant and high-quality resources.

Potential Benefits: Patients that receive care from the ten practices that participate in the program, as well as those living in the community who are at risk of contracting an IPD, will receive the direct benefit of receiving pneumococcal immunization – increased health and well-being and reduced health expenses. Practices will also directly benefit by increasing their impact, efficacy, and efficiency in service provision. Beyond these primary targets, other practices that serve communities of color will potentially benefit through our project's dissemination activities as a model for replication, particularly regarding local lessons learned in delivering the model in ethnic-minority communities in southern California.

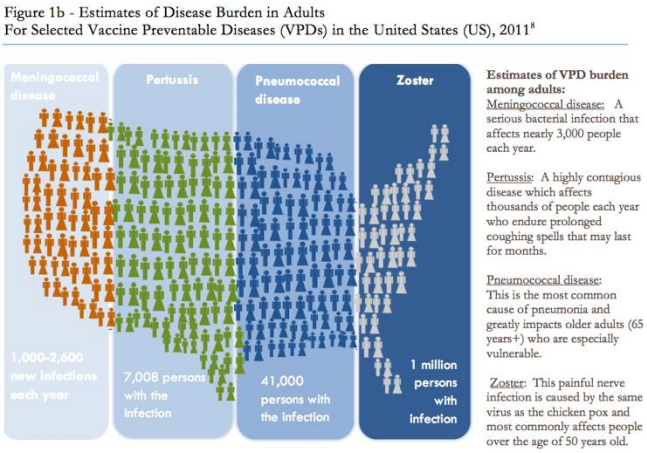
3. Project Leadership

The Project Lead for the Ethnic Communities Pneumococcal Vaccination Collaborative will be Ms. Lisa Folberg, President & CEO of the CMA Foundation. Ms. Veronica Mijic, CMA Foundation Project Director, will serve as the Project Manager and lead all project activities. Ms. Aquino Irving will serve as the Practice Recruitment Coordinator and will be the point of contact for physician practices interested in participating. Additionally, the CMA Foundation will fund a physician consultant, Dr. José Arévalo, to serve as a practice guide and coach for participants throughout the project. The CMA Foundation confirms that the project lead, project manager and the practice coaching consultant, Ms. Folberg, Ms. Mijic, and Dr. José Arévalo, are able to attend both the live training session and convocation (June 22, 2016 and June 21, 2017).

4. Existing Projects

The proposed project builds directly on the CMA Foundation's work regarding improving pneumococcal vaccinations in Los Angeles County. Between 2010 and 2014, the CMA Foundation partnered with its Network of Ethnic Physician Organizations (NEPO), the Immunization Coalition of Los Angeles County and the Los Angeles County Department of Public Health Immunization Program to conduct a needs assessment with primary care and specialty physicians on adult immunization delivery services and practices in Los Angeles County. The assessment was designed to examine service delivery factors that can be addressed to impact the low levels of adult vaccination in the County, including pneumococcal vaccination. The findings are the basis of this project proposal, collaborators, and design. A presentation of the findings are available here and were briefly described in the *Needs Assessment* section of this proposal on page four.

Figure 2. Selection from the *Adult Immunization Practices of Los Angeles County Physicians Assessment Report*, 2013



In 2011, the CMA Foundation designed a successful collaboration linking ethnic media and ethnic physicians to raise awareness

and understanding of pneumococcal disease and its prevention within the Latino and African American communities in Los Angeles County. The demonstration project focused on educating patients about pneumococcal disease and prevention strategies and reaching out to ethnic physicians to educate and vaccinate their patients.

Through our Diabetes Quality Improvement Project, the CMA Foundation has **documented success in making an impact in the primary care setting.** The goal of the project was to improve diabetes and cardiovascular healthcare in practice settings. The CMA Foundation conduced a needs assessment to identify and prioritize clinician education needs. Results of the survey were used to: 1) develop a framework and curriculum for an organization-wide Diabetes Clinician Champion network; 2) develop a series of CME-certified education modules; and 3) to inform content in the Diabetes & Cardiovascular Disease Provider Reference Guide.

As the CMA Foundation is dedicated to **ongoing primary care collaborative efforts**, the Diabetes Quality Improvement Project also spurred the development and implementation of the Diabetes Care Coordination-Team Care Model as a way to maximize the effectiveness of the clinical team in an office practice setting. In this model, patients were linked to key resources, such as Certified Diabetes Educators and dieticians, by medical assistants for long term self-management support including medication adherence. From the lessons learned in developing this model, the CMA Foundation, in partnership with the California Department of Public Health and the California Diabetes Program, developed a toolkit entitled *Diabetes Care Coordination: A Team Based Guide*. Over the course of the project, the CMA Foundation recruited over 500 healthcare champions to act as community educators on diabetes and cardiovascular health.

Our 19-month Covered California Project exemplifies our work to **educate a wide range of physicians and providers statewide,** as well as **gain access to physician practices**. From September 2013 through March 2015, the CMA Foundation served as a partner in Covered California's Outreach and Education Program to increase physician enrollment as providers in the Covered California network and to increase patient enrollment in health insurance following implementation of the Affordable Care Act. This project was built on the largest physician association infrastructure in California – the California Medical Association, one of our collaborators in the proposed Ethnic Communities Pneumococcal Vaccination Collaborative. The CMA Foundation used the California Medical Association's database of all California physicians, including non-members, to educate physicians about Covered California, address their questions about the program, and to enable them and their staff to answer questions and pro-actively educate their patients. The CMA Foundation provided nearly 2 million outreach and education contacts to healthcare providers in almost every county in California. Over 2,500 events, including medical staff presentations, radio shows, physician seminars, and one-on-one practice visits were held throughout the state. This demonstrates CMA Foundation's ability to not only reach a wide range of physicians, but also to *exceed* outreach deliverables, in this case by 135%.

The CMA Foundation thus brings key project experience to leverage in reaching the goals and outcomes of this project. We have:

- Foundational work in the arena of pneumococcal vaccination in Los Angeles County;
- Documented success working collaboratively with physician practices to improve coordinated care in practice settings; and
- Access to the largest physician network in California, as well as to ethnic physician organizations, to recruit and disseminate information to improve rates of pneumococcal vaccination.

5. Dissemination of Results

The target audience for dissemination will be California primary care physicians serving communities of color. The project will utilize network communications approaches, leveraging other associations' and physicians' networks as trusted sources. The goal is to: 1) increase awareness of pneumococcal immunization eligibility and barriers; 2) increase understanding of the NJAPF model and how it can be implemented on a local level targeting practices that serve communities of color in California; and 3) increase pneumococcal immunization rates. The CMA Foundation will collaborate with respected organizations on a local and state level including the California Medical Association (CMA), Network of Ethnic Physician Organization (NEPO), the Los Angeles County Medical Association, and specialty societies, such as the California Academy of Family Physicians. Through these partnerships, the CMA Foundation estimates reaching over 40,000 physicians in the state, including practices that are not typically members of organized medicine.

The project will *disseminate previously developed information and NJAFP Online Toolkit*, as well as *newly developed project- and region-specific materials*. New materials may regard topics such as overcoming communication barriers and locally-tailored materials to engage community partners. The CMA Foundation will also review pre-existing materials and create addendum that are specific to our region, specifically materials that address a) the needs of a largely African American and Latino population, b) California's unique health plan market, and c) California's tremendous reliance on Medi-Cal and other government programs. The CMA Foundation will utilize three main channels for targeted dissemination: meetings and presentations, electronic media publications (i.e. newsletters), and targeted social media. The table on the following page (Table 2) provides a brief summary of the CMA Foundation's dissemination strategy.

Table 2. Project Materials & Outcomes Dissemination Strategy Summary

Channel	Materials Delivered	Outlet	Timeline/Staff
Meetings & Presentations	○ Previously developed information, including from the NJAFP Toolkit ○ Project Lessons Learned & Evaluation Brief ○ Newly developed presentations	○ CMA Foundation Board of Directors Meeting ○ Annual NEPO Leadership Summit ○ CMA Foundation House of Delegates ○ Western Health Care Leadership Academy	○ Quarterly presentations ○ Project Lead, Project Manager, and Recruitment Coordinator
Targeted Electronic Media Publications	○ Previously developed information ○ Previously developed online toolkit ○ Brief Project Report (e-report) ○ Newsletter article ○ Website blurb ○ Blog post ○ Email distribution	○ Websites: CMA Foundation & CMA ○ Newsletters: CMA Foundation biannual newsletter, NEPO biannual newsletter ○ CMA Foundation's biweekly *CMA Alert* Publication ○ Make information available to the following partners: All 39 California County Medical Societies; NEPO's 50+ Ethnic Physician's Organizations; Statewide Specialty Societies, including the California Academy of Family Physicians; American Medical Association; Medical Group Management Association; Council of Foundations ○ Blog: NEPO	○ Monthly publications ○ Ongoing website ○ Project Manager & Recruitment Coordinator
Targeted Social Media	○ Previously developed information and articles of interest ○ Previously developed toolkit and resources ○ Targeted social media posts	○ CMA Foundation, CMA and partners' Facebook & Twitter; regarding the project, pneumococcal immunization awareness messaging and articles	○ Monthly posts ○ Project Manager & Recruitment Coordinator

The proposed project design, dissemination and leadership highlight CMA Foundation's local expertise, connection and experience working closely with physician practices to make an impact on health, and commitment to scale-up through strategic dissemination. The Ethnic Communities Pneumococcal Vaccination Collaborative, as led by the CMA Foundation, is thus poised to meet the goals and objectives of this proposal.

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