

COMPREHENSIVE REPORT OF THE 2013
NATIONAL ADULT VACCINATION PROGRAM SUMMIT:

Developing Champions and Building a

ROADMAP CACTION

TO REACH THE

HEALTHY PEOPLE 2020 GOALS



NOVEMBER 2013





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Each year in the United States, approximately 50,000 adults, and an additional 500 children, die as a result of vaccine-preventable illnesses and their complications—a number that approaches the U.S. fatal casualties in the Vietnam War.^{1,2} Furthermore, the annual economic burden of influenza in adults accounts for \$87.1 billion.3

Although public health professionals and health care providers recognize that immunizations provide both an effective approach to disease prevention as well as cost savings, current adult immunization rates fall well below the goals set for Healthy People 2020 (Table 1).4

Table 1 / Healthy People 2020 Baseline Data and Goals

Objective	Baseline Date	Healthy People 2020 Goals			
Increase the percentage of adults vaccinated annually against seasonal influenza					
Noninstitutionalized adults aged 18-64 years	25% in 2008	80%			
Noninstitutionalized high-risk adults aged 18-64 years	39% in 2008	90%			
Noninstitutionalized high-risk adults aged ≥65 years	67% in 2008	90%			
Institutionalized adults aged ≥18 years in long-term or nursing homes	62% in 2006	90%			
Health care personnel	45% in 2008	90%			
Increase the percentage of adults	vaccinated against pneumococcal disease				
Noninstitutionalized adults aged ≥65 years	60% in 2008	90%			
Noninstitutionalized high-risk adults aged 18-64 years	17% in 2008	60%			
Institutionalized adults	66% of persons in long- term care facilities and nursing homes certified by the Centers for Medicare and Medicaid Services reported having up-to-date pneumococcal vaccinations in 2006	90%			
Increase the percentage of adults	vaccinated against zoster				
	7% of adults aged ≥60 years reported having ever received zoster (shingles) vaccine in 2008	30%			
Source: Reference 4.					

Presently, rates of influenza, pneumococcal, and zoster vaccinations for adults range from 62.3% for influenza to only 20% for zoster, based on immunization type and patient characteristics.^{5,6} The Healthy People 2020 campaign aims to markedly improve adult immunization rates with goals of 90% for influenza and pneumococcal and 30% for zoster by 2020.⁴

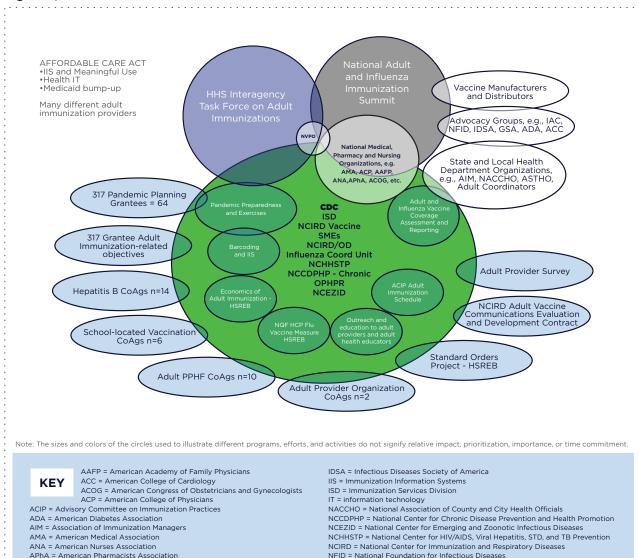
While some improvements in adult vaccination rates are being achieved, these levels are far from goal. In certain instances, rates have declined and resurgence of vaccine-preventable illness is observable. Historically, downward trends in vaccination rates have been shown to quickly reverse decades of progress toward disease prevention. An example of this phenomenon occurred in the United States with the resurgence of measles in 2011 after it had been successfully eliminated in 2000. In 2012, 222 cases of measles occurred in the United States with the great majority of cases affecting unvaccinated persons.



Diseases contributing to the majority of annual vaccine-preventable deaths include influenza (36,000 deaths), pneumococcal disease (6,000 deaths), and hepatitis B (5,000 deaths). Immunizations are proven to prevent morbidity and mortality and prevent avoidable health care spending. In terms of cost savings, every \$1 spent on immunizations saves \$16 in avoided costs of illness. In addition, for every birth cohort that is vaccinated, 33,000 lives are saved, 14 million disease cases are prevented, and \$9.9 billion in direct health care costs and \$33.4 billion in indirect costs are saved. Adult immunizations add further savings and benefits.

The low rates of adult immunizations and persistence of morbidity and mortality associated with vaccine-preventable illnesses are unacceptable. Public health experts, as well as advisory groups, are in agreement that changes must occur. Tremendous effort is underway throughout the country to increase emphasis on adult immunization, address barriers, and reprioritize adult immunizations within health care systems and strategies. Collaborative efforts of the Centers for Disease Control and Prevention (CDC) and the National Adult and Influenza Immunization Summit (NAIIS) workgroups are summarized in Figure 1.¹¹

Figure 1 / CDC Adult and Influenza Immunization-Related Activities



Source: Reference 11.

HCP = health care provide

IAC = Immunization Action Coalition

ASTHO = Association of State and Territorial Health Officials

HSREB = Health Services Research and Evaluation Branch

CDC = Centers for Disease Control and Prevention
GSA = The Gerontological Society of America

HHS = Department of Health and Human Services

Multiple barriers and challenges to adult immunizations include lack of knowledge or understanding of importance by both patients and providers, access and cost of vaccines, insurance coverage, complexity of immunization schedules, and inconsistent, non-centralized documentation of adult vaccination histories. As an independent strategy, patient education has not historically been effective, and requires combination with other interventions. Improvements are being realized. Organizations—such as the American Congress of Obstetricians and Gynecologists (ACOG), the Indian Health Service, the American Pharmacists Association (APhA), and state health departments—have achieved success in advancing adult immunizations within targeted populations or areas (Table 2).

NQF = National Quality Forum NVPO = National Vaccine Program Office

SMEs = subject matter experts

PPHF = Prevention and Public Health Fund

OPHPR = Office of Public Health Preparedness and Response

OD = Office of the Director

Table 2 / Examples of Successful Adult Immunization Efforts

Organization / Sector	Approach	Achievements
American Congress of Obstetricians and Gynecologists (ACOG)	Multi-pronged approach of provider education, patient education, a sustained, repeated effort. Included a focused practice-driven intervention targeting individual practices in 2 ACOG districts encompassing Michigan, Ohio, Indiana, Kentucky, and Texas. Campaign involved 3 direct mailings of evidence-based immunization tool kits to 35,000 ob-gyns in practice on seasonal influenza in 2011-2012 and 2012-2013, plus Tdap in 2012 following release of new recommendations from Advisory Committee on Immunization Practices (ACIP).	Within intervention practices: • Increased flu vaccination coverage for pregnant women from 15% to sustained coverage rate of 50% in a few years. • Increased provider recommendations (key factor in predicting vaccination) to 63% of pregnant women in 2011–2012. Implication: ACOG efforts stimulated members to see themselves as immunizers and armed them with tools and information to act.
Indian Health Service	Employed electronic health record and reminder recall systems to increase rates across all ACIP-recommended vaccines.	As of first quarter 2013, coverage rates for ACIP-recommended vaccines are substantially higher than the national average: • Pneumococcal (ever, in adults aged >65 years): 87.0% • Tdap/Td in last 10 years (adults aged ≥19years): 80.2% • Tdap ever (adults aged >19 years): 66.2% • HPV (female; aged 19-26 years): 42.6% • Zoster (adults aged >60 years): 27.8%
Pharmacists	Multi-pronged approach, organizational commitment from the American Pharmacists Association, chain pharmacies, and pharmacists. Long- term commitment to working on immunizations and repeated education of members and employees plus requirement that schools of pharmacy include immunization training as a requirement for being accredited.	Increased from 5%-7% of people getting flu vaccines at pharmacies before the 2007-2008 pandemic to current rate of approximately 20%. Pharmacists now administer many other types of vaccines (varies by state).
State health departments	10 states received Prevention and Public Health Program funding for adult immunizations to work with pharmacists and employer groups and implement 2–5 optional activities. Focused on registries to document vaccine administration, providing mechanisms for pharmacists to communicate which vaccines they have administered to adult patients.	Among health departments that received funding to improve infrastructure for adult immunizations, activities that partnered health departments with pharmacies were some of the most successful, including dramatic increases in adult immunizations that were entered into immunization information systems (i.e., vaccine registries).

Source: Reference 11.



The National Adult Vaccination Program (NAVP) is a multi-stakeholder industry-supported collaboration spearheaded by The Gerontological Society of America (GSA) to develop a cohesive strategic and policy approach to improve adult vaccination aligned with the recommendations of the CDC Advisory Committee on Immunization Practices (ACIP). GSA is the oldest and largest national interdisciplinary professional membership organization that touches all facets of aging and fosters the application of scientific research into the development of policy, making it a natural home for the NAVP.

This GSA initiative brings together leaders in adult immunization at the national, state, and local levels—in government and the private sector—to look at the issues from a strategic standpoint. Using proven innovation and creativity tools and activities, NAVP efforts harness ideas, perspectives, and information from leaders and champions in adult immunization to identify strategic priorities and actions that are likely to build momentum and effect breakthrough progress. NAVP aims to identify and stimulate policy improvements to advance adult immunizations toward the goals set for Healthy People 2020. The proceedings of the 2013 NAVP Summit and its roadmap for action are discussed in this report.

The 2013 NAVP Summit featured keynote presentations related to successful efforts in adult immunizations and opportunities within the Affordable Care Act to increase access to vaccines for adults. A discussion panel provided further insight from the payer, policy, and social work perspectives. These presentations and discussions summarized the current state of adult immunization in the United States, highlighted successful and innovative efforts, and provided a foundation for the work of the Summit.

Key stakeholders with an interest in advancing adult immunizations convened for the NAVP Summit on August 22, 2013, in Washington, DC. The interprofessional colleagues assembling for this meeting included representatives from health care (i.e., nursing, medicine, pharmacy, physician assistants, nurse practitioners, social work, psychology), professional organizations, government agencies, state immunization registries, state and local public health departments, along with leaders in education, quality, policy, payers, and consumer advocacy as well as GSA staff and professional facilitators for the full-day meeting. Appendix 1 lists the 2013 NAVP Summit attendees.

THE 2013 NAVP
SUMMIT WAS
DESIGNED TO BUILD
ON THE WORK OF
THE 2012 NAVP
SUMMIT¹³ AND
OTHER ONGOING
NATIONAL AND
STATE EFFORTS TO:

- •Develop actionable plans to help address the well-known barriers (for providers, policy makers, and the public) to increasing adult immunization rates.
- •Support existing immunization champions and create new champions.
- •Encourage and stimulate collaborations and mobilize the efforts and energy of the participating organizations.

2013 NETHODS

PRE-SUMMIT ENGAGEMENT O

Prior to the Summit, all participants were assigned to one of three groups based on participant expertise and representation of the Summit's stakeholder organizations.

The Summit groups were focused on the following questions:

PROVIDER: What strategies will create provider champions of adult immunizations and mobilize providers to immunize adults?

PUBLIC: What strategies will create lay champions of adult immunizations and mobilize the public to be immunized across the aging continuum?

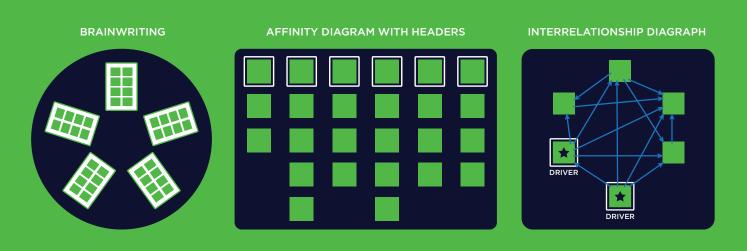
POLICY: What policy changes or improvements are necessary to create a culture supportive of adult immunizations?

Participants in each group engaged in background reading that included a newsletter developed by GSA that highlights numerous national and state immunization efforts, research, and statistics in adult immunizations; the 2012 NAVP white paper¹³; related working group reports from the May 2013 NAIIS and background on the Affordable Care Act. The purpose of the background reading was to inform awareness of ongoing efforts to improve adult immunization; level-set participants' understanding of issues, policy, and perspectives; and foster ideas leading into the 2013 NAVP Summit.

SUMMIT ACTIVITIES

On the day of the Summit, keynote addresses and panel discussion were followed by participants assembling into their assigned topical groups. They engaged in a carefully selected series of creativity, innovation, and strategy tools to address and create a foundation for action plans for mobilizing providers, mobilizing the public, and identifying policy improvements to create a culture for advancing adult immunization. Facilitators trained in the creativity and innovation tools, techniques, and strategy worked with each group and its NAVP peer leaders to maintain efficiency, focus, and consistency.

Figure 2 / Creativity and Innovation Tools



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Each group employed a series of innovation activities (Figure 2). This included a quiet brainstorming activity (i.e., "brainwriting") to collectively generate hundreds of individual ideas for policy-focused strategy within the assigned area of focus. Strategies were then categorized and summarized at a higher level of organization to identify overarching themes (i.e., affinity diagrams). Using a powerful tool called the interrelationship digraph, participants then determined directional dependency and the level of influence among all of the key overarching strategies to understand how potential actions drive or impede success. This process yielded delineation of which strategies are strategic drivers and which are outcomes of other activities. Prioritization identified which of the strategies will be most likely to stimulate breakthrough success of the NAVP strategic plan. Appendix 2 details the interrelationship digraphs generated by each of the Summit groups. Finally, each group selected two of the key driving strategies and outlined preliminary actions for accomplishing them.

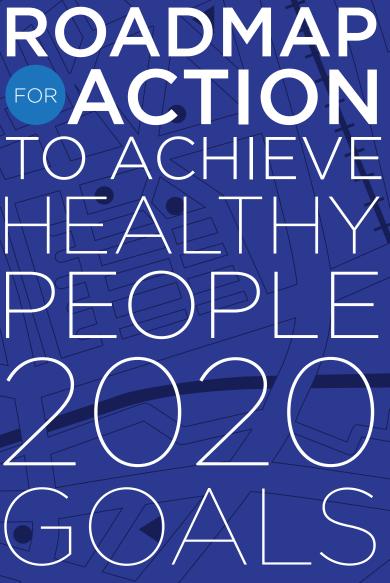
Following the meeting, with input from the NAVP program director and GSA staff, the lead facilitator analyzed and synthesized the outcomes and action plans to identify the common themes that emerged as driving strategies across all three working groups. These cross-cutting themes form the basis for the roadmap for action offered in this report.

CROSS-SECTOR THEMES OUTCOMES

The stakeholders and experts participating in the 2013 NAVP Summit identified the following themes and outcomes for advancing adult immunizations in the United States:

- Funding and reimbursement are key to providing access.
- Policy improvements are at the core, with health reforms heightening opportunities.
- Data drives action and is required for policy makers and providers to act.
- Reporting through an accessible central immunization registry is essential.
- Champions are crucial.
- Missed opportunities of potential vaccinators and venues exist within our society.
- Quality requirements underpin rapid, broad system change.

These themes serve as the foundation of the 2013 NAVP Summit recommendations and suggested roadmap for action to achieve the Healthy People 2020 goals for adult immunization. The NAVP Summit findings also provide the foundation for a 2014 invitational conference on developing and training lay and provider champions of adult immunizations to improve vaccination rates for adults across the nation.



The proposed roadmap for action includes seven recommendations that represent the culmination of the experience, discussions, and on-site work of the thought leaders who were gathered at the 2013 NAVP Summit; many of these individuals also engage in other national adult immunization efforts, such as the NAIIS, National Vaccine Program Office (NVPO), National Vaccine Advisory Committee (NVAC), 2012 NAVP Summit, and other local and state initiatives. This roadmap integrates other national efforts and is offered to the wide community of stakeholders who are committed to advancing adult immunizations. GSA and the NAVP hope that stakeholders will use, augment, and adapt the elements of the suggestions in this roadmap in order to achieve breakthrough progress toward the Healthy People 2020 goals.

RECOMMENDATION



EXPAND FUNDING and REIMBURSEMENT

ADULT IMMUNIZATIONS

Funding and reimbursement for vaccines emerged as a key driver that underpins many efforts to advance adult immunizations. This is not surprising given the known prevalence of financial barriers and their historic impact on vaccine access. However, current efforts to reform the U.S. health care system and emphasize preventive care are opening unprecedented opportunities to address funding, payment, and access to vaccines for adults. Changing federal and state laws, evolving regulations, expansion and evolution of health information technology, and emphasis on prevention and health care quality are acting synergistically to provide multipronged opportunities. These approaches and opportunities can be leveraged to improve funding and reimbursement-related access.

OMILESTONES

- Evolve vaccine purchase models to engage states in the procurement of vaccines and permit providers to access vaccines from the state. This would serve to enhance access to vaccines by reducing the financial risk borne by individual providers, which currently acts as a barrier.
- Advocate for a Vaccines for Adults Program.
- Expand Public Health Service Act Section 317 Immunization Program funding to broadly encompass adults.
- Create mechanisms and Current Procedural Terminology (CPT)
 codes to allow for billing and reimbursement of vaccines, systems
 to deliver and document vaccine administration, and patient
 education.
- Advocate for prioritization of adult vaccination coverage (among private and public payers), preventive care services, and coverage of all ACIP-recommended adult vaccines under Medicare Part B and Part D (without copayment/cost sharing) and to the Medicaid-eligible population.

LEVERAGE OPPORTUNITIES In Health Reforms Output Description Descrip



As 2014 approaches, implementation of the Affordable Care Act and elements including essential health benefits, first dollar coverage of preventive care visits, and health insurance exchanges are on the horizon. The current health care landscape has the unprecedented potential to advance adult immunizations and the related public health benefits through rapidly evolving systems, processes, and strategies. With precision to capitalize on the preventive care emphasis in our reforming health care system, the potential for breakthrough progress is high.

Numerous opportunities for policy improvements were identified during the 2013 NAVP Summit through keynote presentations, panel discussions, and the group working on policy issues. Coupled with efforts of the NAIIS Policy and Decision Makers Working Group, the NVAC, and others, the following strategic milestones for advancing adult immunizations through policy improvements are recommended.

MILESTONES C

- Create a provider tool kit highlighting opportunities stemming from the Affordable Care Act to immunize adults.
- Integrate required adult immunization reporting into health information technology and the Medicare and Medicaid Electronic Health Record Incentive Programs (i.e., "meaningful use").
- Integrate immunization screening into hospitals' community health needs assessments to incentivize them to include adult immunization in their action plans.
- Expand recognition of in-network providers to include community vaccinators and venues of care (e.g., pharmacies, health departments, schools, workplaces).
- Expand the types of providers who can administer vaccines.
- Expand coverage of all ACIP-recommended vaccines in Medicare Part B and Part D (without copayment/cost sharing) and to traditional Medicaid recipients.
- Additional NAIIS Policy and Decision Makers Working Group efforts: conduct gap analysis for each decision-maker category and develop targeted messaging for each; develop a state-of-the-state document to provide information on potential policy barriers, scopes of practice, and immunization registries.

Table 3 outlines specific health reform-related opportunities discussed by speakers and working groups to advance adult immunizations and offers potential strategies and tactics for action.

Table 3 / Health Reform-Related Opportunities to Advance Adult Immunizations

Area of Opportunity	Strategies and Tactics	
Affordable Care Act (ACA)		
Increased coverage for immunizations through the ACA: • Private insurance plans must now cover all adult	Advocate for the government to openly make exchange networks include alternative care providers as in-network vaccinators.	
vaccines recommended by the Advisory Committee on Immunization Practices (ACIP) at no cost sharing (first dollar).	Integrate protocols to reach those who will still be uninsured after ACA implementation wherever they go for care (i.e., emergency rooms, hospitals, and community health	
 New exchanges must also apply the Immunization Coverage Standard. 	centers). Explore state-by-state data in the future to determine ways	
 Adult Medicaid expansion population will have access to ACIP-recommended adult vaccines at no cost sharing. 	to take advantage of the "natural experiment" that will occur when various states take different approaches to exchanges and expansions.	
Payment bump for Medicaid primary care providers for 2013–2014 (retroactive to January 1,	Work to increase awareness of this increased payment opportunity among primary care providers.	
2013), in which the federal government will pay the differential between state and federal Medicaid rates for certain primary care services, including immunizations, for certain types of providers (i.e., primary care providers, pediatricians).	Find ways to show the value and positive impact of this reimbursement effort in order to advocate to make it permanent.	
Potential financial benefit for implementing a no cost-sharing standard for adult Medicaid traditional population. The Federal Medical Assistance Percentages (FMAP), included in the ACA, provides a 1% increase in federal match for states that make key benefits the same for the traditional and expansion Medicaid populations.	Encourage states that are expanding Medicaid to make the benefit the same for the traditional and expansion populations (offering no cost sharing for ACIP- recommended vaccines) in order to become eligible to apply for the FMAP match.	
Medicare Personalized Prevention Plan encouraging Medicare beneficiaries to seek	Find ways to include discussion of vaccines within the Medicare Personalized Prevention Plan.	
their immunizations.	Find opportunities to discuss the issue of having vaccines split between Medicare Part B and Part D and explore coverage under both to ensure access across venues of care.	
Community Benefits Provision of the ACA requiring nonprofit hospitals that want to receive a tax exemption to complete a community needs assessment every couple of years.	Work to convince hospitals and providers to analyze community immunization levels and identify gaps so they are compelled to acknowledge, and hopefully act upon, the problem.	
	Advocate to the Internal Revenue Service (which makes rules regarding community needs assessments) to require hospitals to assess the level of immunizations for all ACIP-recommended vaccinations in their community.	
	Work to help community health centers, ACOs, and patients in their medical homes to develop the right technology to support these efforts.	

Affordable Care Act (cont.)

Accountable care organizations (ACOs) and their focus on increasing quality while containing costs.

The shift toward ACOs will present an opportunity to integrate vaccines into the capitated payment system. However, vaccinations are not a primary focus of quality measures for Medicare ACOs.

Find out how ACOs are using their capitated payments and how vaccinations can be incorporated into these systems.

Determine strategies for including technology related to adult vaccinations (immunization registries, reminder and recall systems, etc.) within the ACA's push for EHRs.

Decide whether to require more vaccine reporting or include financial incentives for better vaccination rates—and advocate for the decided measure.

The expansion of electronic health records (EHRs) and the meaningful use standards.

Advocate for requirements that ACOs include immunization prompts in meaningful use standards.

Encourage large EHR vendors to come up with voluntary standards regarding immunization, using existing standing orders as a model.

Additional Opportunities

Increased availability of 317 funds. With fewer uninsured and underinsured children, more of the limited 317 funding can be used to purchase adult vaccines and support infrastructure of adult immunization.

Look for ways to use 317 funding for adult vaccines.

Increased employer-driven workplace health efforts. Employer-sponsored health efforts are presenting ways to integrate adult immunization awareness and implementation.

Find ways to integrate preventive services, including immunizations, into the current emphasis on wellness and help to engage employer focus on outcomes of wellness programs.

Determine how to coordinate reporting among various providers and implement registries.

Capitalize on the growing number of on-site health clinics to engage patients at work through health fairs, flu clinics, and other efforts.

Expansion of non-physician providers to administer immunizations.

Advocate for the government to openly make exchange networks include alternative care providers as in-network vaccinators.

Advocate for ACOs to involve more providers and venues of care (e.g., pharmacists, state and local health departments) into the system and provide them with capitated payments to allow them to coordinate care.

Look at different regulations and laws that inhibit access to providers, such as licensing requirements preventing non-physician providers from administering vaccines or providing education and outreach.

Exploration of different learning styles to reach varied target audiences.

Incorporate all learning styles in vaccine education efforts.

Consider ways to evaluate individual patients' learning styles and include these in EHRs for provider reference so providers can use the appropriate learning style when communicating with patients.

Ability to remind and incentivize providers to recommend adult immunizations.

Encourage implementation of a Current Procedural Terminology code that pays providers for counseling and incentives for them.

Include a prompt in EHRs to ask about vaccines.

Capture adults in an immunization information system for reminder recalls (more at the state requirement level).

RECOMMENDATION



COMPILE, CONDUCT and **DISSEMINATE**RESEARCH • ADULT IMMUNIZATION

Scientific data provide the required foundation and impetus for necessary action by legislators, policy and decision makers, and providers. A coordinated effort to identify existing literature, active research, and potential gaps in evidence and to set research priorities should be conducted and made available to stakeholders.

Literature Review/Survey/Gaps Analysis. To coordinate efforts and minimize redundancy, a literature review and gaps analysis should be conducted to evaluate the strength of existing evidence in adult immunizations, including cost effectiveness, outcomes, and best practices. Results of available data should be graded and catalogued in a research database. One-page summaries on key topics to support advocacy for policy change should be developed and made available to stakeholders.

Surveys of research organizations and institutions should be conducted to identify active (pre-publication) areas of research, barriers for providers, and strategies that are currently working in practice to advance adult immunizations. The Affordable Care Act and meaningful use provide opportunities for collecting data and evidence that can be extrapolated to other populations to effect change. Advisory groups and research summits to convene panels of experts could be employed to identify high-priority areas of potential research related to adult immunization.

Research on adult immunization should be conducted based on needs and gaps identified. Stakeholders who have been involved in previous advisory groups and research summits should be engaged in this process. A summary of the results is needed to create advocacy briefs and talking points and identify targeted decision makers.

P MILESTONES

- Identify existing evidence and conduct gaps analysis to delineate needs.
- Identify research opportunities related to implementation of the Affordable Care Act to inform actions and interventions in other populations.
- Create one-page summaries of existing data needed in advocacy for policy change.
- Encourage collaborative research to fill evidence gaps and integrate into opportunities made available by the Affordable Care Act.
- Use data to inform stakeholders, champions, and providers to influence policy change.

CREATE A National Registry ADULT IMMUNIZATIONS



Adult immunization efforts are challenged by the complexity of adult vaccination schedules and lack of a broad, consistent mechanism for documenting and recording indicated vaccines that have been administered to patients over time by various providers across venues of care. Inadequate communication among vaccinating health care providers may lead to confusion and inefficiency. A national immunization registry that is widely accessible by health care providers, pharmacies, health care practices, insurers, and patients is needed. Users across venues of care at the provider, insurer, and patient levels must be able to access individual vaccination histories that include documentation regarding which vaccines are indicated and have been administered (including when and where).

Undoubtedly, the creation of a national registry would be met with political and operational challenges and resistance—similar to the experience of the Childhood Immunization Initiative in 1993. However, the creation and implementation of a national registry, with elements accessible to providers, stakeholders, and patients emerged as a driver in propelling progress in adult immunizations. Notwithstanding political challenges, a national registry for adult immunizations is likely to produce the best possible outcome over alternatives including state-based registries.

Creation of a national immunization registry for adults begins with evaluating existing systems and resources, enacting policy change, and developing tools for implementation and utility. Current mandatory reporting and tracking systems, such as reportable diseases and quality measures, would need to be integrated into adult vaccination reporting. Collaborative efforts with individuals and organizations with experience using these existing systems would need to be established. The American Immunization Registry Association anticipates releasing a white paper in early 2014 detailing the results of their pharmacy-related survey of immunization registries and describing the barriers and best practices reported by pharmacies.

Policy changes would need to be advocated to allow for integration of adult vaccination into electronic health records and ensure interoperability to enable automatic state and national reporting. Tools for implementation and to improve utility might include template language for standing orders, development of measures, and other tools such as reminders and recall systems. The registry should be created in a way that providers and health systems can easily integrate its use.

MILESTONES c

- Identify and evaluate existing mandatory reporting/tracking systems (e.g., reportable diseases, quality measures) to integrate adult vaccination reporting; identify collaborators.
- Advocate for necessary policy change that integrates adult vaccination into electronic health records; ensure interoperability to enable automatic state and national reporting.
- Create tools and measures for implementation and integration that include standing orders, reminder and recall systems, and other tools and measures that could be easily integrated by providers and health systems.

RECOMMENDATION



IDENTIFY and **TRAIN** Provider and Lay Champions • ADULT IMMUNIZATION

Health care providers agree that vaccinations are an effective preventive measure against life-threatening diseases and cost saving for both patients and the health care system. However, champions are needed to mobilize the public and providers to connect knowledge of the benefits of vaccines to action and practice. Currently, federal agencies, NAIIS, and individual leaders are driving interest in and awareness of adult vaccinations; however, to effectively mobilize providers and the public, leadership must be bolstered and coordinated.

Targets. Champion development among providers and the lay population begins by identifying appropriate targets. Targets may include specific populations or individuals such as policy makers, health care providers, employers, older adults, and parents of young children. Data should be used and communicated to align targets to specific needs; disease burden, vaccine coverage, age, geodemographics, economics, sex, race, ethnicity, and family work roles are examples of areas in which to collect data.

Influential Champions and Spokespersons. Identify influential spokespersons from multiple sectors (e.g., business, sports, music) to reach each identified target population. National champions might include ESPN announcers, individuals from the Jim Henson Foundation or Disney, Oprah Winfrey, Sanjay Gupta, Dr. Oz, and the Surgeon General of the United States. Identification should be guided by data assessing the potential reach, capabilities, resources, history of effective influence, reputation, and representativeness of potential champions.

Incentives. Incentives and motivators should be identified and employed to optimize reach and effectiveness in communicating key messages to target audiences. Patients' perspectives will be augmented by their personal providers, media, and champions. Provider champions can incentivize and mobilize other providers through conveying mutual benefits of partnership and action, and helping them to align strategies and raise internal excitement for immunization awareness. Professional organization trade shows may be used to mobilize professional societies, engage their members, and encourage continued involvement through outreach and educational activities. Local, national, or organizational recognition can be a strong motivator for some providers. Financial incentives also can be effective to mobilize providers (e.g., increase in compensation or quality scores in response to increases in vaccination rates or data reporting). Lay champions and patients who engage the public through effective messaging may drive demand and, in turn, increase motivation and supply at a provider level.

Tool Kits. Development of easy-to-use tools and resources encourages continued engagement of providers, champions, spokespeople, and patients. Tools should be created and tailored to target specific populations. As time goes on and technology advances, social media becomes an important tool of modern society that could be strategically employed to advance adult immunizations efficiently, with carefully developed messaging and rollout. Online tools can be created for providers using information technology to streamline and standardize vaccine monitoring and delivery. An online tool could be developed for patients to access and enter information regarding age, demographics, lifestyle, health history, and other relevant information to generate a personalized list of immunizations indicated for them. Additional methods include the creation of websites portraying personal stories and experiences of patients with vaccine-preventable diseases, data-driven tool sets for lay champions to identify and engage spokespersons across all sectors, and surveys to assess perceived barriers for patients as well as providers.

Training. Champion effectiveness can be enhanced through training in leadership, communication, traditional media, and social media. Such training for providers can be incorporated into and offered at national meetings or summits. Collaboration between professional societies (e.g., ACOG, APhA, AARP, GSA, American Nurses Association) for training purposes can align efforts and encourage future collaboration to meet vaccination goals. Spokespersons and champions should have training tools and resources tailored to them so they can effectively reach out and encourage others.

o MILESTONES

- Identify targets and influential individuals and organizations with interest or stake in adult immunizations.
- Identify incentives.
- Develop tool kits including online resources for champions, providers, and the public.
- Conduct a 2014 GSA invitational conference on developing and training lay and provider champions.

RECOMMENDATION



CHANGE POLICIES to **EXPAND**

IMMUNIZATION RATES, AUTHORIZED VACCINATORS 🗪 VENUES

Systems, policies, and registries exist to ensure that most children are immunized as infants and prior to starting school. Administration of immunizations to adolescents occurs within the same health care venues as children—typically, pediatricians' offices and family practice clinics. Historically, the culture of the U.S. health care system and society has not emphasized immunizations for adults.

Mandate Immunizations. Unimmunized health care workers contribute to the overall population of unimmunized adults. Mandating health care worker immunization through state licensing requirements would increase the rate of immunized adults and decrease spread of vaccine-preventable disease in the health care system. ^{5,14} On-site clinics, health fairs, and influenza clinics are ideal opportunities to provide employee vaccinations and engage this population within their place of employment and generate excitement for change. Other opportunities to mandate immunization of adults may be identified and integrated with quality measures and initiatives.

Expand the Pool of Authorized Vaccinators. State professional practice acts should be analyzed and measures can be taken to advocate for changes to state laws and regulations that enable certification of additional health professionals to administer immunizations. In addition, policy barriers that impede participation by providers should be addressed by advocating for changes in state regulations that prohibit provider engagement. Other health care professionals who are not yet authorized to vaccinate may possess the capability and the desire to champion immunization of adults, similar to the observed evolution among pharmacists as immunization champions over the past 20 years. Identification of these other professionals and advocacy for public policy change and licensing requirements will broaden the vaccinating workforce and improve vaccine uptake. Potential new vaccinators identified during the Summit include social workers, dentists, podiatrists, emergency medical services personnel, and mental health workers. Expanding access and authority among these professionals may create new partnerships that leverage community resources, perhaps with greater efficiency. Further analysis of state practice acts for each identified profession should be conducted to determine how their roles in immunizations might increase.

Expand Venues for Immunization Delivery and In-Network Coverage of Community Vaccinators. Out-of-network status impedes access to vaccines through community vaccinators (e.g., lack of health insurance coverage of vaccines administered at alternative locations such as pharmacies, health fairs, and schools). Public payers have embraced coverage of vaccinations in these locations, but opportunities still exist for expansion of coverage into the private sector. Very few commercial plans recognize pharmacists and health care workers at local and state health departments as vaccine providers nor do these plans include community vaccination facilities (e.g., pharmacies, school-based clinics, public health clinics) in their coverage benefits. Some plans that recognize these alternate providers and locations do not cover all vaccines available for administration. As health insurance exchanges are built and evolve, plans and government payers should be encouraged to expand their definition of in-network providers to include alternative care providers. Immunization champions should work to ensure that people can maximize new benefits when seeking immunizations at alternative care sites. The CDC's third-party billing project is one opportunity; others could be developed and employed.

MILESTONES

- Mandate health care worker immunization through state licensing requirements.
- Identify additional opportunities, venues, and partnerships for mandating immunizations for subset populations of adults.
- Analyze state professional practice acts and change state laws and regulations to enable certification of other vaccinators.
- Enact requirements for health plans to increase in-network coverage of vaccines administered at alternative locations (e.g., pharmacies, local and state health departments, health fairs).

RECOMMENDATION



EXPAND QUALITY MEASURES

ADULT IMMUNIZATION

Quality measures are known to mobilize providers, practices, and systems and drive change. While there presently are some quality measures regarding adult immunization, opportunities exist for improvement and expansion that could positively advance rates and improve care. For example, Medicare accountable care organizations are required to report 33 quality measures; however, only one of these measures relates to adult vaccination (i.e., adults 65 years of age and older who have received pneumococcal vaccine). Further, under Medicaid, standards for health homes for enrollees with chronic diseases do not include adult vaccinations.

Expansion of quality measures for adult immunizations and policy change to enable enforcement of new measures will encourage and incentivize providers and drive increases in immunization rates. Through data collection and monitoring, these measures also can be used as evidence that expanding immunization coverage and certified vaccinators increase adult immunization rates. Evolution of adult immunization-related quality measures will focus attention on adult vaccination; this reprioritization has the potential to improve rates, advance them toward the Healthy People 2020 goals, improve health care, and reduce avoidable expenditures, morbidity, and mortality.¹⁵

OMILESTONES

- Develop and expand quality measures related to adult vaccination in evolving models of care, including accountable care organizations and patient-centered medical homes.
- Partner with quality organizations to assist in efforts to develop, expand, endorse, and implement quality measures related to adult immunizations (e.g., Pharmacy Quality Alliance, National Quality Forum, National Committee for Quality Assurance).
- Expand measures of the Healthcare Effectiveness Data and Information Set (HEDIS) to include all ACIP-recommended adult vaccines (i.e., expand beyond influenza and pneumococcal vaccines).
- NAIIS Quality and Performance Measures Working Group pilots are evaluating ways
 to develop combined preventive services performance measures that include adult
 immunizations; additional efforts are underway to have these measures standardized
 and integrated into other chronic disease measures.
- Integrate vaccine-related quality measures into existing standards for site accreditation, star ratings, and report cards.

ROADMAP

Unprecedented work is underway to improve access and optimize the health and economic benefits of immunizations for adults. The most effective approaches leading to achievement of the Healthy People 2020 goals will involve systematic implementation of interventions across multidisciplinary settings, backed by vaccine accessibility, awareness, and health insurance coverage. Policy improvements—founded on a strong evidence base and backed by quality measures and initiatives—will pave the way.

While challenges persist, the collaborative strategic efforts of leaders and stakeholders engaged in the 2013 NAVP Summit revealed a roadmap suggesting how public and private efforts in the United States can increase adult vaccination rates, reduce vaccine-preventable illness, and provide overall cost savings. Reaching the Healthy People 2020 goals for adult vaccination requires a coordinated effort to maximize opportunities through expansion in care, funding, and services available through the Affordable Care Act and evolving regulations.

Realizing this shared vision will require participation, commitment, and collaboration by every stakeholder. Although the issues are complex, the vision is achievable. This report suggests a strategic roadmap—informed through the input, consideration, and strategic thinking of leaders in adult immunizations through the 2012 and 2013 NAVP Summits, NVAC, NVPO, CDC, NAIIS, public health, other state and federal agencies, the pharmaceutical industry, patient advocacy organizations, and health care providers.

The NAVP Summit findings provide the foundation for a 2014 invitational conference and training on how to develop lay and provider champions of adult immunizations to improve vaccination rates for adults across the nation. The shift of the U.S. health care system from sick care to preventive care paves the way for progress to advance adult immunizations to reduce the burden of vaccine-preventable illnesses in the United States and achieve the positive economic and health outcomes that are possible through vaccines.

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APPENDIX 1



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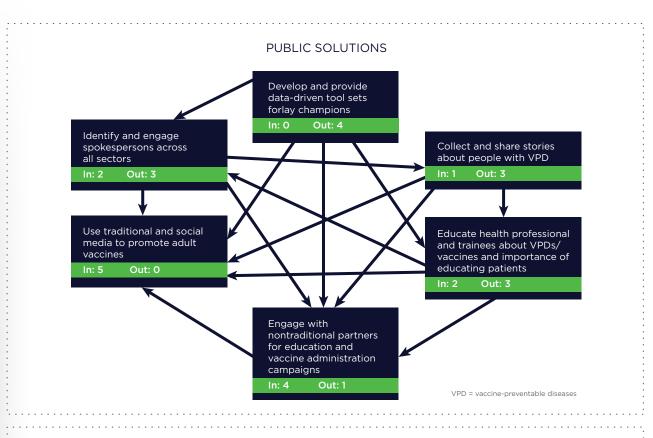
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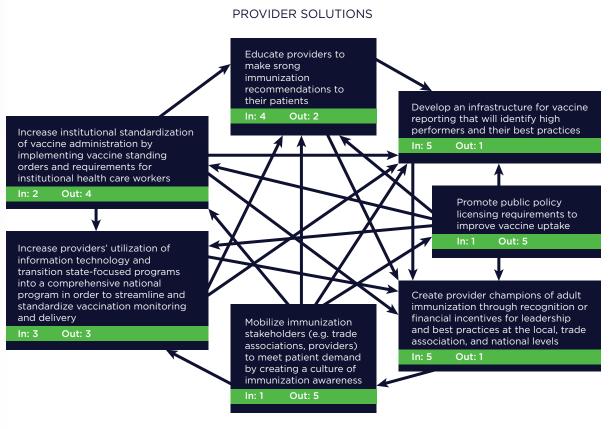
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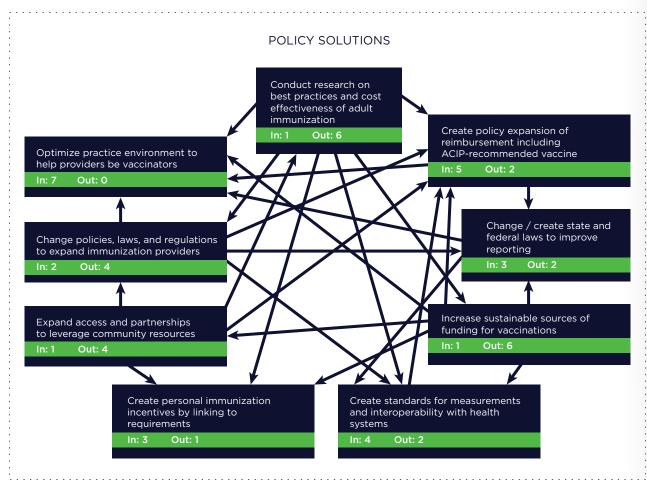
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ACIP = Advisory Committee on Immunization Practices.

