STEP 1:

Getting Started

F YOU WORK in a setting that serves adults in some way — whether that be an internal medicine, family medicine, or ob-gyn practice, or a pharmacy, family planning clinic, homeless shelter, sexually transmitted disease clinic, correctional setting, or

You could prevent serious disease, and even death, by offering vaccinations to your patients, clients, or other adult populations.

drug treatment program – you could prevent serious disease, and even death, by offering vaccinations to your patients, clients, or other adult

populations. Increasingly, providing vaccination services in multiple types of healthcare settings is seen by public health and immunization experts as one of the best ways to deliver vaccines to adults.

In 2004, the Immunization Action Coalition (IAC) first published Adults Only Vaccination: A Step-by-Step Guide to help clinicians in a variety of adult healthcare settings implement programs to vaccinate adults against infectious diseases. This 2017 updated edition, Vaccinating Adults: A Step-by-Step Guide ("the Guide"), has been developed to incorporate current information with the expert advice found in the original publication. But no guide or "how-to" manual is sufficient to train you to be a full-fledged vaccinator. You will need the assistance of one or two well-trained and experienced healthcare professionals who might already be working in your healthcare setting. You also can connect with experienced staff at your state or local health department. A helpful list of state immunization program coordinators is available through IAC's website at www.immunize.org/coordinators.



We hope you won't be intimidated by the seeming complexities of vaccination. While it's true that the number of vaccines available and their dosing schedules can be a bit daunting, and official recommendations can change frequently, vaccination may be approached on many different levels. In the *Guide*, we address vaccination at its most basic level. As you gain experience, you will learn more about vaccine recommendations and scheduling intricacies.

Print and Internet resources abound to help you keep up to date with scheduling and other practical issues. Some of the great resources available from IAC include:

■ IAC's website for healthcare professionals at www.immunize.org. Check this site often for the latest information to help you stay current. The Clinic Resources web section at www.immunize. org/clinic is an excellent place to start.



Periodic IAC publications

► IAC Express at www.immunize.org/express.

This publication, which is delivered directly to your email box every week, features important immunization developments such as the latest vaccine recommendations and licensures.

newly released information from the Centers for Disease Control and Prevention (CDC), including new and updated Vaccine Information Statements and



www.immunize.org/express

practical vaccination education materials like patient handouts or staff materials, practical journal articles, and more. Be sure to subscribe to *IAC Express* at www.immunize.org/subscribe.



www.immunize.org/ technically-speaking

▶ Technically Speaking, at www.immunize.org/
technically-speaking, is a monthly column
written by IAC Executive Director Deborah L.
Wexler, MD. The column is featured in The
Children's Hospital of Philadelphia Vaccine
Education Center's monthly Vaccine Update for
Healthcare Providers. The content covers practical topics in immunization delivery that are
relevant to all patient ages. You'll find guidance
about topics such as needle length, vaccine
administration technique, cold chain issues,
and immunization schedules.

These and other resources will serve you well once you are vaccinating, but they reflect a basic vaccination competence that we don't want to assume here. They tend to start "in the middle of things" because they are directed at established vaccinators. With the *Guide*, we want to start where you might be now – at the beginning.

In this *Guide*, we assume that:

This *Guide* strips essential preventive medicine intervention down to its basic steps.

 you don't necessarily have the basic vaccination

competencies (although you might);

- you don't necessarily know how vaccination services will fit in with your other clinical or program offerings;
- you have:
 - a community in need of more opportunities to be vaccinated against vaccine-preventable diseases;
 - a motivated staff with at least one part-time or full-time member who can make time to lead the vaccination program, as well as one who can legally (in your state) administer vaccines; and
 - a healthcare setting willing to invest time and effort to contribute to individual and community health through vaccination.

This *Guide* strips essential preventive medicine intervention down to its basic steps. You currently are reading the first of seven steps; subsequent steps cover important "how to" practices such as:

- setting up for vaccination services;
- purchasing vaccines;
- storing and handling vaccine appropriately;
- deciding which people should receive which vaccines;
- administering vaccines; and
- maintaining appropriate records.

It will all come together - step by step!

Vaccination definitely is one of our most cost-effective medical interventions, generating cost savings through reduced treatments for illness and hospitalizations.

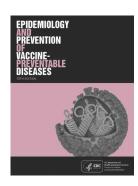
Step 7 of the Guide even provides information about the complex topic of billing for vaccines. Offering vaccinations may not be a huge income generator for your organization. But vaccination definitely is one of our most cost-effective medical interventions, generating cost savings through reduced treatments for illness and hospitalizations. In the best-case scenario, if you complete the necessary paperwork



and billing, you will receive appropriate reimbursement for vaccinating adults. Medicare has reimbursed providers for influenza and pneumococcal vaccines for many years. Even so, these vaccines remain woefully underused nationwide, even by Medicare beneficiaries. For adults younger than 65 years, most private insurance companies cover the cost of vaccines recommended by CDC's Advisory Committee on Immunization Practices (ACIP) at no cost to patients. Additionally, many state Medicaid programs cover adult vaccines, and some state immunization programs have special programs to support adult immunization activities.

Need more help? You will want to obtain a copy of CDC's Epidemiology and Prevention of VaccinePreventable Diseases (known informally as "The Pink Book"). This essential vaccine reference for all

vaccinators can be accessed online at www.cdc.gov/ vaccines/pubs/pinkbook/ index.html. The entire book or individual chapters may be downloaded for free. Soft-cover editions of the complete book may be purchased (when in stock) through the Public Health Foundation website at http://bookstore.phf.org/



www.cdc.gov/ vaccines/pubs/pinkbook/index.html

Store/ProductDetails.aspx?productId=27876.

Why the emphasis on adult vaccination?

The simple answer to this question is that adult vaccination needs have suffered from inattention for far too long. It's time to complement our nation's excellent immunization infrastructure for children and teens with a similar

In the U.S., fewer adults than children are fully vaccinated even though adults are much more likely to die from vaccinepreventable diseases than are children.

immunization landscape for adults.

In the United States, fewer adults than children are fully vaccinated even though adults are much more likely to die from vaccine-preventable diseases than are children. According to the Recommendations from the National Vaccine Advisory Committee: Stand-



ards for Adult Immunization Practice, available online at http://journals.sagepub.com/ doi/pdf/10.1177/0033354914 12900203, there are many reasons for this "vaccination gap":

http://journals.sagepub.com/doi/pdf/ 10.1177/003335491412900203

- Healthcare providers as well as patients may lack knowledge about the need for vaccinating both high-risk and healthy adults. All too often, adults think vaccines are "just for kids."
- When adults receive care, medical management of acute and chronic illnesses usually receives priority over preventive services. Assessing the patient for recommended vaccines may not even be considered.
- Many adults do not visit a clinician regularly, or they do not have a primary care provider, or they change providers often. As a result, their immunization status simply falls through the cracks. Even patients with chronic medical conditions that place them at high risk for complications from vaccine-preventable diseases often see several different specialists, none of whom takes primary responsibility for immunization, and all of whom can mistakenly assume that vaccination is someone else's job.
- Some providers do not offer vaccines, or they may not offer all the vaccines recommended for adults.
- Provider payment systems can be complicated, confusing, or inadequate.

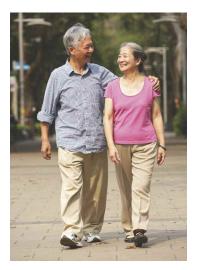
"Adult immunization rates in the United States are embarrassingly low.... We can and must do better."

L.J TAN, MS, PHD
 Chief Strategy Officer, Immunization Action Coalition

In spite of these challenges, it is critical that we improve our adult immunization levels. As noted by L.J Tan, MS, PhD, chief strategy officer, Immunization Action Coalition, "Adult immunization rates in the United States are embarrassingly low. As a result, thousands of adults will die from vaccine-preventable diseases this year, and hundreds of thousands more will be hospitalized. We can and

must do better." You and your healthcare setting can make a difference by vaccinating adults.

Indeed, in contrast to adult levels, vaccine coverage levels for children at kindergarten entry exceed 90 percent in almost all places in the United States. Consequently, disease rates for almost all child-hood vaccine-preventable diseases have decreased by 95 to 100 percent. This includes rates for pneumococcal disease, for which the childhood vaccine has been available since 2002. That is dramatic progress in improving children's health. We want to



have the same effective results for adults.

It's clear we have our work cut out for us. CDC's 2015 adult immunization coverage estimates (released in 2017) indicate less than one-half (44.8%) of adults age 19 or older have received

their annual influenza vaccine, and less than one-fourth (23.0%) of adults age 19 to 64 who are at high risk for pneumococcal disease have ever been vaccinated against pneumococcal infection. Similarly, only 3 in 10 (30.6%) of adults age 60 years or older have received herpes zoster (shingles) vaccine. Just 2 in 5 (41.6%) of young women age 19 to 26 have received even one of the three recommended doses of human papillomavirus (HPV) vaccine, which can prevent cervical cancer. Finally, only 23.1% of adults age 19 and older for whom vaccination could be assessed have received their recommended dose of tetanus-diphtheria-pertussis (Tdap) vaccine. In addition, racial and ethnic disparities were apparent for all vaccines.



We must improve these rates. By picking up the Guide, you've already taken an important first step in making a difference in adult vaccination coverage. With four simple actions, you can have a huge impact on adult vaccination rates:

- Assess the immunization status of all your patients during every clinical encounter;
- **PROVIDE** a strong recommendation for vaccines that your patients need;
- **ADMINISTER** needed vaccines or, at a minimum, **REFER** your patients to a provider (including pharmacies) who immunizes; and
- **DOCUMENT** vaccines your patients receive from you or from other providers.

How do I determine which vaccines adults need?

Adults need different vaccines based on their health, age, lifestyle, and occupational factors - unlike most children, who need vaccines based on age alone. It's a little more complicated to figure out which vaccine(s) an adult needs. One size does not fit all. But the good news is that there are many resources available to help you assess your patient's vaccine needs.

Each February, CDC announces the availability of the adult immunization schedule in the Morbidity and Mortality Weekly Report (MMWR). The current recommended adult immunization schedule is

Adults need different vaccines based on their health, age lifestyle, and occupational factors - unlike most children, who need vaccines based on age alone.

available online at www.cdc.gov/vaccines/schedules/ downloads/adult/adult-combined-schedule.pdf. When you visit the site, you'll see that there are two tables of recommendations: one group of recommendations is based on age group, while the other is based on the medical and other conditions of your patient. Multiple footnotes explain the details of the recommendations. This may look a little intimidating at

first. However, after you take a few minutes to review the information, you'll find it's not as overwhelming as it might have first appeared. You'll also find some great tools to help with your assessment of adult vaccinations needed, such as IAC's Which Vaccines Do I Need Today? and other screen-



www.immunize.org/ catg.d/p4036.pdf

ing checklists, available at www.immunize.org/ handouts/screening-vaccines.asp. And, as we will discuss later in the Guide, your state's immunization information system (registry) or your electronic medical record system may include tools to help you

Your state's immunization information system or your electronic medical record system may include tools to help you determine which vaccinations your patient needs.

determine which vaccinations your patient needs. All of these tools help with vaccinations needed today and during future visits.



With a little planning, vaccinating adults is surprisingly manageable.

The *Guide* does not discuss vaccines for children or travelers

We have limited the *Guide* to routine vaccinations recommended for adults, defined as people who are at least 19 years of age. We also have not included information on vaccinations required for international travel. If your patient is traveling to different countries, immunization information can be found on CDC's travel website, wwwnc.cdc.gov/travel.

Concluding thoughts

With a little planning, vaccinating adults is surprisingly manageable – and not so surprisingly, this planning is extremely important. Now that you have read this introduction and are motivated to become a vaccinator or increase the number of vaccines you currently provide, you are ready to develop your vaccination services program, one step at a time. Both you and the adults you protect from vaccine-preventable diseases in the months and years to come will be glad you did.

STEP 1: GETTING STARTED

Materials and Resources for You to Use

► TOOLS FOR PROVIDERS

Recommendations from the National Vaccine Advisory Committee: Standards for Adult Immunization **Practice (NVAC)** – http://journals.sagepub.com/ doi/pdf/10.1177/003335491412900203

Recommended Adult Immunization Schedule, United **States (CDC)** – www.cdc.gov/vaccines/schedules/ downloads/adult/adult-combined-schedule.pdf

Standards for Adult Immunization Practice (CDC) www.cdc.gov/vaccines/hcp/adults/for-practice/ standards/index.html

Standards for Adult Immunization Practice (NAIIS) www.izsummitpartners.org/adult-immunizationstandards

Strategies to Improve Adult Vaccination Coverage (IAC) – www.immunize.org/catg.d/p2050.pdf

Suggestions to Improve Your Immunization Services (IAC) - www.immunize.org/catg.d/p2045.pdf

► ADDITIONAL PROVIDER RESOURCES

Adult Immunization (ACP)

www.acponline.org/clinical-information/clinicalresources-products/adult-immunization

Adult Vaccination Information for Healthcare and Public Health Professionals (CDC)

www.cdc.gov/vaccines/hcp/adults/index.html

Adult Vaccination Resources: For Provider Practices (CDC) – www.cdc.gov/vaccines/hcp/adults/ for-practice/index.html

NOTE: The publisher of each resource is shown as an acronym in the parentheses following the title. A key to these acronyms is included in Appendix A: Acronyms and Abbreviations.

Adult Vaccination Web Section (IAC) www.immunize.org/adult-vaccination

Clinic Resources Web Section (IAC) www.immunize.org/clinic

Conversations: Improving Adult Immunizations Rates Using Simple and Strong Recommendations (AAFP) – www.aafp.org/patient-care/public-health/ immunizations/video.html

Epidemiology and Prevention of Vaccine-Preventable Diseases ("The Pink Book") (CDC) www.cdc.gov/vaccines/pubs/pinkbook/index.html

Guide to Adult Immunization (ACP)

www.acponline.org/clinical-information/clinicalresources-products/adult-immunization/acps-guideto-adult-immunization

Immunizations (AAFP) – www.aafp.org/patient-care/ public-health/immunizations.html

Immunizations: You Call the Shots (CDC) www.cdc.gov/vaccines/ed/youcalltheshots.html

Immunization Webinar Series (ACP)

www.acponline.org/clinical-information/clinicalresources-products/adult-immunization/acpimmunization-webinar-series

Immunizing Adult Patients: Standards of Practice (CDC) – www.cdc.gov/vaccines/hcp/adults/ downloads/standards-immz-adults.pdf

National Adult Immunization Plan (NVPO) www.hhs.gov/sites/default/files/nvpo/national-adultimmunization-plan/naip.pdf

The Vaccine Handbook: A Practical Guide for Physicians ("The Purple Book") (Marshall) www.immunize.org/vaccine-handbook

CONTINUED ON NEXT PAGE

STEP 1: GETTING STARTED

Materials and Resources for You to Use

CONTINUED FROM PREVIOUS PAGE

► INFORMATION FOR PATIENTS

Factsheets on Immunization Topics (NFID) www.nfid.org/publications/factsheets

Handouts for Patients and Staff (IAC) www.immunize.org/handouts

Vaccinate Your Family (ECBT) www.vaccinateyourfamily.org/adults

Vaccine Information for the Public (HHS) www.vaccines.gov

Vaccine Information for the Public (IAC) www.vaccineinformation.org

NOTE: The publisher of each resource is shown as an acronym in the parentheses following the title. A key to these acronyms is included in *Appendix A: Acronyms and Abbreviations*.

► GENERAL INFORMATION

Adult Vaccination Web Section (NFID) www.adultvaccination.org

IAC Express (IAC) – www.immunize.org/express

Immunization Action Coalition (IAC) www.immunize.org

National Adult and Influenza Immunization Summit (NAIIS) – www.izsummitpartners.org

State Immunization Program Manager Contacts
(AIM) – www.immunizationmanagers.org/?MemPage

Subscribe to IAC Express (IAC) www.immunize.org/subscribe

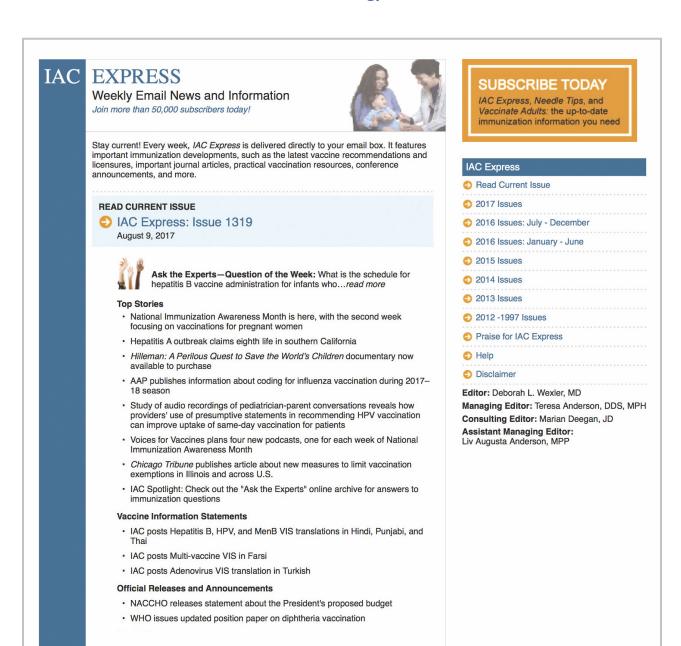
Technically Speaking (IAC)
www.immunize.org/technically-speaking

To access issues of IAC Express, visit

www.immunize.org/express

For a free subscription to IAC Express, visit

www.immunize.org/subscribe



www.cdc.gov/vaccines/hcp/adults/downloads/ standards-immz-adults.pdf

Immunizing Adult Patients:

Standards for Practice

Your patients trust you to give them the best advice on how to protect their health. Vaccinepreventable diseases can result in serious illness, hospitalization, and even death.

Make adult vaccination a standard of care in your practice.

Your patients have probably not received all the vaccines they need.

Even though most insurance plans cover the cost of recommended vaccines, adult vaccination rates in the U.S. are extremely low. Each year, tens of thousands of adults needlessly suffer, are hospitalized,

and even die as a result of diseases that could be prevented by vaccines.

Your patients may not even realize that they need vaccines.

Many adults don't know which vaccines are recommended for them throughout their lives. Many also report not receiving vaccine recommendations from their healthcare professional.

You can make a difference.

Clinicians are the most valued and trusted source of health information for adults. Research shows that most adults believe vaccines are important and that a recommendation from their healthcare professional is a key

predictor of patients getting

needed vaccines.

Make Immunization a Standard of **Patient Care In Your Practice:**

1. ASSESS the immunization status of all your patients at every clinical encounter.

- Stay informed about the latest CDC recommendations for immunization of adults.
- · Implement protocols in your office to ensure that patients' vaccine needs are routinely reviewed and patients get reminders about vaccines they need.

2. Strongly RECOMMEND vaccines that your

- · Address patient questions and concerns in clear and understandable language.
- Highlight your positive experiences with vaccination (personal or in your practice).

3. ADMINISTER needed vaccines or REFER your patients to a vaccination provider.

- For vaccines that you stock, make vaccination services as convenient as possible for your patients.
- · For vaccines that you don't stock, refer patients to providers in the area that offer vaccination services.

4. **DOCUMENT** vaccines received by your patients.

- Participate in your state's immunization registry to help your office, your patients, and your patients' other providers know which vaccines your patients have had.
- Follow up to confirm that patients received recommended vaccines that you referred them to get from other immunization providers.

professionals—whether they provide immunization services or not—in ensuring that adult patients are fully immunized. These standards are published by the National Vaccine Advisory Committee and supported by the Centres for Disease Control and Prevention as well as a number of national medical associations.

*Visit www.cdc.gov/vaccines/schedules/ for a detailed schedule of recommended vaccines and guidelines for administration.

Vaccines for Adults*

ditions (HIV, asplenia, sickle cell disease,

conditions that cause weakening of the

conditions and who are at higher risk

have documented evidence of immunity 2 doses

ed or finished the vaccine series

had the vaccine or do not have

who are at risk, including adults with

r disease, or behaviors that increase risk Il disease, HIV/AIDS, removal of treatment with drugs) who have

t risk for exposure or have

age 11 or older

Coverage of Adult Vaccines

Most private health insurance plans cover the cost of recommended vaccines. If your patients do not currently have health insurance, refer them to www.HealthCare.gov to learn more about

For patients 65 years or older enrolled in Medicare, Medicare Part B covers the cost of influenza and pneumococcal vaccines as well as Hep B vaccine for persons at increased risk of hepatitis. Those with a Medicare Prescription Drug Plan (Part D) or enrolled in a Medicare Advantage Plan (Part C) that offers Medicare prescription drug coverage may also have coverage for additional vaccines like zoster, MMR, and Tdap. Visit www.Medicare.gov for more information.

Vaccine coverage for Medicaid beneficiaries varies by state. Contact your State Medicaid Agency

For additional information on adult immunization and resources for patient education, visit: www.cdc.gov/vaccines/hcp/adults.

In 2014:

Only 20% of adults 19 years or older had received Tdap vaccin

NUMBER OF DOSES

1 dose each pregnancy

1 dose every 10 years

previously received)

1 dose every year

1 dose (All)

1 dose (if not

1 dose

3 doses

3 doses

1 or 2 doses

1 or more doses

Last Updated May, 2016

Vaccinating Adults: A Step-by-Step Guide Immunization Action Coalition • www.immunize.org • www.vaccineinformation.org

To access the current, ready-to-copy version of this piece, visit

www.immunize.org/catg.d/p2050.pdf

Strategies to Improve Adult Vaccination Coverage



Many vaccines are recommended for adults, but vaccines don't work unless we get them into the arms of the people who need them. Despite the fact that there are safe and effective vaccines, diseases that can be prevented by these vaccines continue to take a huge toll among adults in the United States

Low adult vaccination coverage rates occur for a variety of reasons, including low community demand for vaccines, lack of access to vaccination services, and systemand provider-related factors. Successful adult vaccination delivery depends on several patient and provider factors, as

well as system issues, such as vaccine supply and reimbursement.

Adults are unlikely to seek vaccination unless they believe that the disease is a threat to them and that there is a vaccine that can prevent the disease. They need to know that they are personally at risk. Even if they know a vaccine is available, adults also may have misconceptions about the vaccine and inordinate concerns about vaccine

A knowledgeable provider who uses effective strategies like the ones suggested below can address these issues.

EFFECTIVE STRATEGIES

Unequivocal provider recommendation

Standing orders protocols

Reminder and recall systems

Assessment and feedback

Expansion of patient access

Reminder and recall systems are efficient as

Strategies to Improve Adult Vaccination Covera

- PATIENT reminder and recall system or recalling them if they are overdue, can be as "low tech" as a postcard or systems. State/local immunization in used to generate both reminders and
- PROVIDER reminder and recall system that individual patients are due - or The reminders and recalls can be deli notification, a flow sheet or checklist with a sticker or stamp. Some IISs car tion, many electronic medical record These often can be set up to provide

Assessment and feedback are helpful tools

- Assessment and feedback for provide a provider's delivery of one or more v his or her performance.
- · Your state/local immunization progra coverage levels, particularly when you nization program (see www.immuniz

Expanding patient access increases rates.

- Expanding patient access to vaccinat availability of vaccinations can be acc
 - · increasing or changing hours wh
 - · opening an "express lane" that o vaccinations only, or offering "in on weekends.

An unequivocal provider recommendation is crucial.

- One of the leading reasons adults identify for not receiving a vaccine is the lack of a recommen-
- An unequivocal vaccine recommendation by an adult's healthcare provider is one of the most important interventions to improve patient acceptance of a vaccine
- Providers often don't appreciate the power of their recommendation of a vaccine, or the impact of their lack of a recommendation. Most adults rely on their providers to let them know which vaccines are recommended and when they should be given.

Standing orders protocols work.

- Standing orders protocols are a series of written medical orders authorizing a qualified (i.e., eligible to do so under state law) healthcare professional to assess the need for and administer accine to all persons meeting certain criteria (such as age or underlying medical condition), eliminating the need for an individual physician's order for a patient's vaccine.
- Standing orders have been shown to be the most consistently effective means for increasing vaccination rates and reducing missed opportunities for vaccination.
- Standing orders templates for all routinely recommended adult vaccines are available from IAC at www.immunize.org/standing-orders.



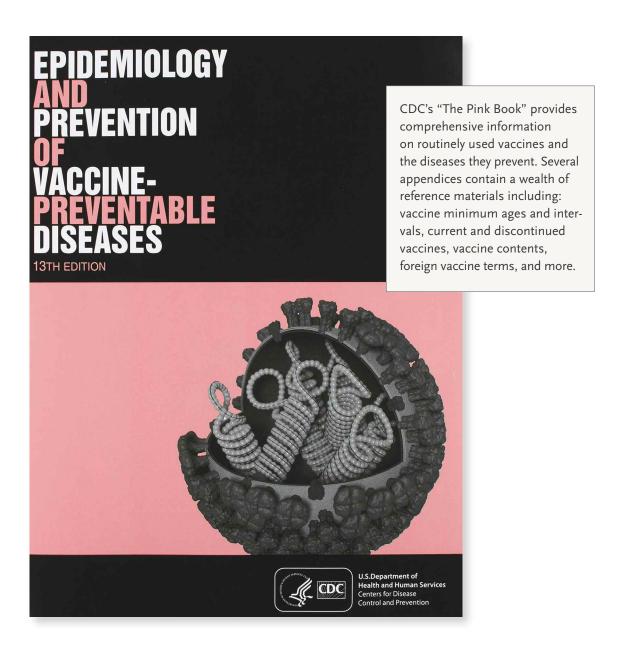
Saint Paul, Minnesota • 651-647-9009 • www.immunize.org • www.vaccineinformation.org

Choosing interventions that work and that are well matched to local needs, priorities, and capabilities is vital to improving vaccination coverage. At the very least, clinicians who see adults in their practice should screen for vaccine indications, recommend the vaccines, and either make the vaccines available in their offices or have a reliable referral site identified where patients can be sent for vaccination services.

Clinicians owe it to their adult patients to provide educational materials about vaccines in their offices, inform patients of the availability of and their need for vaccines, and encourage vaccine use. A few simple improvements in office practices can save many lives.

Additional information about strategies to improve adult vaccination rates is available from ${\sf CDC\ at\ www.cdc.gov/vaccines/hcp/adults/for-practice/increasing-vacc-rates.html}.$

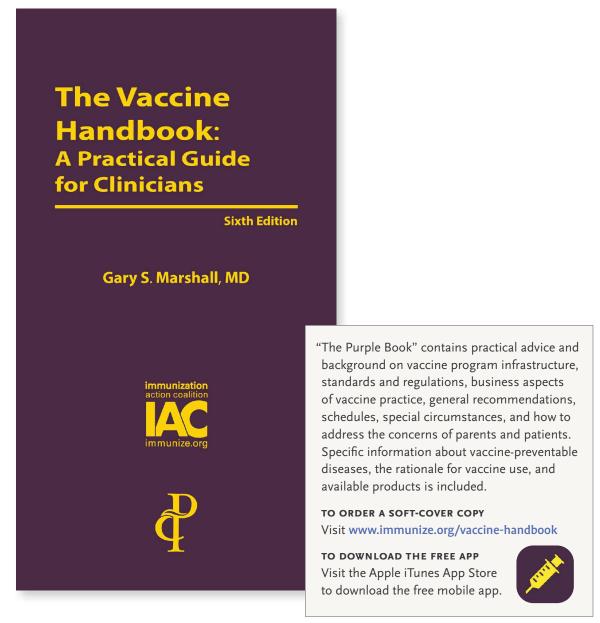
 $\textbf{Immunization Action Coalition} \cdot \textbf{Saint Paul}, \\ \textbf{Minnesota} \cdot \textbf{651-647-9009} \cdot \textbf{www.immunize.org} \cdot \textbf{www.vaccineinformation.org}$ www.immunize.org/catg.d/p2050.pdf * Item #P2050 (9/17) To access the current, ready-to-copy version of this book, visit www.cdc.gov/vaccines/pubs/pinkbook/index.html



"The Pink Book"

To access information about this book and its app, visit

www.immunize.org/vaccine-handbook



"The Purple Book"