Increasing Adult Immunizations

Denise Starkey, MPH, MA
DSHS Immunization Unit
Topics

• Texas Adult Immunizations: Background and Analysis
• Texas Department of State Health Services (DSHS) Adult Immunization Program
  • Adult Safety Net (ASN) Program
  • Texas Adult PPHF Program
• CDC Standards for Adult Immunization Practices
Adult Immunizations
Background and Analysis
Vaccines Added To Immunization Schedule For General Recommendations

- **Pediatric Vaccine**
  - Pertussis (1914)
  - Diphtheria (1926)
  - Tetanus (1938)
  - Polio (OPV-1955) and (IPV-2000)
  - Measles (1963)
  - Mumps (1967)
  - Rubella (1969)
  - Hib (infant) (1989)
  - Hepatitis B (1991)
  - Varicella (1996)*
  - Pneumococcal Conjugate (2001)*
  - Pneumococcal Polysaccharide (2002)*
  - Influenza (2002)*
  - Hepatitis A (2006)*
  - Rotavirus (1998-1999)*

- **Adolescent Vaccine**
  - Tdap (2006)*
  - Meningococcal (2005)*
  - HPV (2011)*
  - Meningococcal B (2015)*

* Vaccines added since VFC Program Implemented (1994)

Annual Pediatric Schedule: 1994
Adult Immunization Schedule: 2002
Catch-up Pediatric Schedule: 2003
Separate Adolescent Schedule: 2007
Catch-up Adolescent Schedule: 2007
### FIGURE 1. Recommended adult immunization schedule — United States, 2002–2003

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Age group (yrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19–49</td>
</tr>
<tr>
<td>Tetanus, diphtheria (Td)*</td>
<td></td>
</tr>
<tr>
<td>Influenza</td>
<td>1 dose annually for persons with medical or occupational indications or household contacts of persons with indications</td>
</tr>
<tr>
<td>Pneumococcal (polysaccharide)</td>
<td>1 dose for persons with medical or other indications (1 dose revaccination for immunosuppressive conditions)***</td>
</tr>
<tr>
<td>Hepatitis B*</td>
<td>3 doses (0, 1–2, 4–6 months) for persons with medical, behavioral, occupational, or other indications***</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td>2 doses (0, 6–12 months) for persons with medical, behavioral, occupational, or other indications**</td>
</tr>
<tr>
<td>Measles, mumps, rubella (MMR)*</td>
<td>1 dose if MMR vaccination history is unreliable; 2 doses for persons with occupational, geographic, or other indications***</td>
</tr>
<tr>
<td>Varicella*</td>
<td>2 doses (0, 4–8 weeks) for persons who are susceptible***</td>
</tr>
<tr>
<td>Meningococcal (polysaccharide)</td>
<td>1 dose for persons with medical or other indications**</td>
</tr>
</tbody>
</table>

- For all persons in this age group
- For persons with medical/exposure indications
- Catch-up on childhood vaccinations

[https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5140a5.htm](https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5140a5.htm)
Updates to Adult Immunization Schedule

Vaccines added with general recommendations (does not include recommendations for special conditions)

- **2003**: General recommendation for Td dose booster added for ever 10 years, flu for persons 50 and older and pneumococcal polysaccharide for 65+

- **2006**: MMR (born in 1957+) and Varicella added for all persons 19-49 (without evidence of immunity)

- **2007**: HPV added for women ≤ 26, Zoster ≥ 60; Meningococcal Conjugate added for select pop.
Updates to Adult Immunization Schedule

Vaccines added with general recommendations (does not include recommendations for special conditions)

- 2009: Varicella added for 19+ (w/o vaccination or history) and Tdap 1 time dose for Td booster (Td for remaining series)
- 2012: HPV added for males 19-21
- 2013: Pneumococcal conjugate (PCV 13) added (various age recommend.; admin before PPSV 23)
- 2014: Hib vaccine added for special populations
- 2015: PCV 13 added for +65
- 2016: Men B added for special populations
**Recommended Adult Immunization Schedule 2017**

Figure 1. Recommended immunization schedule for adults aged 19 years or older by age group, United States, 2017

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>19–21 years</th>
<th>22–26 years</th>
<th>27–59 years</th>
<th>60–64 years</th>
<th>≥ 65 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza¹</td>
<td>1 dose annually</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Td/Tdap²</td>
<td></td>
<td>Substitute Tdap for Td once, then Td booster every 10 yrs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MMR³</td>
<td>1 or 2 doses depending on indication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VAR⁴</td>
<td></td>
<td></td>
<td>2 doses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HZV⁵</td>
<td></td>
<td></td>
<td></td>
<td>1 dose</td>
<td></td>
</tr>
<tr>
<td>HPV–Female⁶</td>
<td></td>
<td></td>
<td>3 doses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HPV–Male⁵</td>
<td></td>
<td></td>
<td>3 doses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCV13⁷</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 dose</td>
</tr>
<tr>
<td>PPSV23⁷</td>
<td>1 or 2 doses depending on indication</td>
<td></td>
<td></td>
<td>1 dose</td>
<td></td>
</tr>
<tr>
<td>HepA⁸</td>
<td></td>
<td></td>
<td>2 or 3 doses depending on vaccine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HepB⁹</td>
<td></td>
<td></td>
<td>3 doses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MenACWY or MPSV4¹⁰</td>
<td></td>
<td></td>
<td>1 or more doses depending on indication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MenB¹⁰</td>
<td></td>
<td></td>
<td>2 or 3 doses depending on vaccine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hib¹¹</td>
<td></td>
<td></td>
<td>1 or 3 doses depending on indication</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Legend:**
- **Yellow** Recommended for adults who meet the age requirement, lack documentation of vaccination, or lack evidence of past infection.
- **Purple** Recommended for adults with additional medical conditions or other indications.
- **Blank** No recommendation.

Updates to Adult Immunization Schedule

• 2017 Adult Schedule (now 6 pages)
  – General Recommendations Review
  – Chart with Recommended Immunization Schedule
  – Chart with vaccines cross-linked with medical conditions
  – Footnotes for recommendations (2 pages)
  – Contraindications and Precautions for adult vaccines

• 2002 schedule:  7 vaccines
• 2017 schedule:  15 vaccines
## Uninsured Adults 18-64 Years of Age in Texas

<table>
<thead>
<tr>
<th>HSR</th>
<th>Population</th>
<th>Uninsured</th>
<th>% Uninsured</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>497,865</td>
<td>125,559</td>
<td>25.2%</td>
</tr>
<tr>
<td>2/3</td>
<td>4,803,752</td>
<td>1,167,520</td>
<td>24.3%</td>
</tr>
<tr>
<td>4/5N</td>
<td>840,797</td>
<td>220,156</td>
<td>26.2%</td>
</tr>
<tr>
<td>6/5S</td>
<td>4,354,478</td>
<td>1,134,982</td>
<td>26.1%</td>
</tr>
<tr>
<td>8</td>
<td>1,668,138</td>
<td>389,506</td>
<td>23.3%</td>
</tr>
<tr>
<td>7</td>
<td>1,997,730</td>
<td>426,138</td>
<td>21.3%</td>
</tr>
<tr>
<td>9/10</td>
<td>865,993</td>
<td>251,264</td>
<td>29.0%</td>
</tr>
<tr>
<td>11</td>
<td>1,247,546</td>
<td>486,259</td>
<td>39.0%</td>
</tr>
<tr>
<td>Texas</td>
<td>16,276,299</td>
<td>4,201,384</td>
<td>25.8%</td>
</tr>
</tbody>
</table>

*Source: 2014 Small Area Health Insurance Estimates Program, US Census Bureau*
## Adult Immunization Coverage Levels - 2015 Texas Behavioral Risk Factor Surveillance System (BRFSS)

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Coverage Level (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult Flu: All Ages</td>
<td>38.3</td>
</tr>
<tr>
<td>Adult Flu: 65+</td>
<td>66.2</td>
</tr>
<tr>
<td>Tetanus, diphtheria, and pertussis (Tdap)</td>
<td>21.2</td>
</tr>
<tr>
<td>Pneumococcal</td>
<td>34.7</td>
</tr>
<tr>
<td>Pneumococcal: 65+</td>
<td>70.9</td>
</tr>
<tr>
<td>Measles, Mumps, Rubella (MMR)</td>
<td>59.1</td>
</tr>
<tr>
<td>HPV: 1 or more doses</td>
<td>13.3</td>
</tr>
</tbody>
</table>
DSHS Adult Immunization Program

- DSHS Adult Program
  - 9 Program staff (1 in Central Office and 8 Health Service Regions)
  - Adult Safety Net (ASN) Program
    - State and Federal Funded
    - State Health Departments, Local Health Departments, FQHC, RHC
    - Uninsured clients only
  - Texas Adult Prevention and Public Health Fund (PPHF) Program
Adult Safety Net (ASN) Program

- May 2003 – Present: 14 Years of Service
- Its initial inception as a limited Hepatitis B initiative
- Currently, a program that supplies adult vaccines at no cost to a network of 520 providers

Was a program that served uninsured and underinsured adults, now just uninsured
Adult Safety Net (ASN) Program

• Supplies publicly-purchased vaccine at no cost to enrolled providers.

• Increases access to vaccination services in Texas for uninsured adults.

• Eligible providers:
  • DSHS Regional Clinics
  • Local Health Departments
  • FQHC
  • RHCs
Adult Safety Net (ASN) Program

• Continue to serve only uninsured adults, 19 years of age and older

• Vaccines currently available:
  • Hepatitis A
  • Hepatitis B
  • Combination Hepatitis A/B
  • MMR
  • HPV 9
  • Pneumococcal 13 and 23
  • Tetanus, Diphtheria, and Pertussis (Td and Tdap)
  • Meningococcal Conjugate (MCV4)
  • Zoster
Partnerships and Collaborations

• Texas Immunization Stakeholder Working Group (TISWG)
• Texas Medical Association
• Texas Pediatric Society
• Texas Pharmacy Association
• Texas Quality Improvement Organization (TMF)
• Other State Agencies – HHSC, DSHS Programs
• Texas Immunization Coalitions
• Adult Immunization Providers (including Pharmacies)
• Hospitals, Home Health Agencies, Nursing Homes, Senior Centers, etc.
• Vaccine Manufacturers
Adult PPHF Program

**Goal:**
To remove barriers to vaccines and improve vaccination coverage rates for adults in Texas.

**Adult Standards for Immunization Practice**
1. **Assess** immunization status for all patients at every encounter
2. Strongly **recommend** vaccines patients need
3. **Administer** needed vaccines or **refer** patients to a provider who vaccinates
4. **Document** vaccinations that patients receive
Target Population

Large Provider Groups, Community Health Centers and Pharmacies:

a. Offer education to clinic staff to increase recommendations and vaccination for adults.

b. Encourage reporting the number of vaccine doses administered to adults to ImmTrac2.

c. Evaluate data and policies to increase recommendations and vaccination for adults and assess adult immunization coverage rates.

Targeted Programs for Site Visits:

- Adult Safety Net (ASN) Program
- Providers not currently enrolled in the ASN Program
**Adult PPHF Activity**

1. **Partnerships:**
   a. Department of State Health Services (DSHS) Health Services Regions (HSR)
      • Adult and Adolescent Immunization Coordinators (AAIC)
   b. DSHS Quality Assurance Contractor
   c. Texas Pharmacy Association (TPA)

2. **Adult Site Reviews (ASN/Non-ASN Providers)**
   a. Standards for Adult Immunization Practice
   b. ASN Program policy review
   c. Storage and handling review
   d. Provider follow-ups

3. **Provider resources and trainings**
Standards for Adult Immunization Practice

Centers for Disease Control and Prevention (CDC)
CDC Standards for Adult Immunization Practices

In 2014, The U.S Health and Human Services National Vaccine Advisory Committee update the Standards for Adult Immunization Practice
Why implement the Standards for Adult Immunization Practice?

1. Adult vaccination rates in Texas are extremely low.
2. Most adults are NOT aware that they need vaccines.
3. Recommendations from healthcare professionals are the strongest predictor of whether patients get vaccinated.
4. Missed opportunities for vaccination because many healthcare professionals are not routinely assessing vaccination status.
CDC Standards for Adult Immunization Practices

- ASSESS patient immunization status and needs
- RECOMMEND vaccines
- ADMINISTER vaccines needed or REFER patients to a vaccinating provider
- DOCUMENT vaccines received by your patients
Assess

1. Do you/staff engage in **continuing education** to **stay up-to-date** on the recommended vaccines for adults?

2. Can your clinic ensure adult immunization needs are **routinely** reviewed by staff/provider?

3. Do you/staff **assess** a patient's vaccine needs at every visit?

4. Do patients receive **vaccine reminders** (i.e. postcard, phone call, letter)?
Assessing your patients’ vaccination status at every clinical encounter will decrease missed opportunities.

- Give patients a vaccine assessment form at check-in.
- Include standing orders or protocols for nursing staff to assess and administer needed vaccines.
- Integrate vaccine prompts into EMR/EHR.
- Use reminders/recall system:
  - Help your practice stay on top of needed vaccines that are due soon or are overdue.
  - Send your patients reminders about missed vaccines or vaccines that are due soon.
1. Do you/provider recommend vaccine(s) to patients?

2. Do you/provider address patient questions and concerns regarding vaccines with clear verbal or written communication?

3. Do you/provider explain the benefits of getting vaccinated and the potential risk of getting the disease?

4. Do you/provider highlight positive experiences about immunity against vaccine preventable diseases to reinforce the benefits and strengthen confidence in vaccinations?
Recommend

SHARE the tailored reasons why the recommended vaccine is right for the patient given his or her age, health status, lifestyle, occupation, or other risk factors.

HIGHLIGHT positive experiences with vaccines (personal or in your practice), as appropriate, to reinforce the benefits and strengthen confidence in vaccination.

ADDRESS patient questions and any concerns about the vaccine, including side effects, safety, and vaccine effectiveness in plain and understandable language.

REMINd patients that vaccines protect them and their loved ones from many common and serious diseases.

EXPLAIN the potential costs of getting the disease, including serious health effects, time lost (such as missing work or family obligations), and financial costs.
Administer

1. Do you make vaccination services convenient for your patients (i.e. extended hours, weekends)?

2. For patients needing multiple vaccines, do you administer all doses on the same visit?
Administer

1. Assess patient vaccination status at every visit.
2. Recommend and offer vaccines at the same visit.
3. Train and educate your staff on vaccine administration.
4. Properly store and handle vaccines.
5. Distribute Vaccine Information Statements (VIS).
6. Ensure proper care for patients.
7. Follow standard precautions to control infection.
8. Be aware and prepared for potential adverse reactions.
1. Do you refer patients to providers who may offer vaccination services?

2. Do you follow-up with patients to confirm they received the vaccines from referred immunization providers?

Why is it important?

• Patients rely on healthcare professionals to give them the best advice on how to protect their health.
• Refer your patients to other immunization providers for vaccines you do not stock.
Vaccine Referral Options

- Other providers (i.e. sister clinics)
- State or Local Health Departments
- Pharmacies
- Travel Clinics
- HealthMap Vaccine Finder: http://vaccine.healthmap.org
1. Do you/staff participate in the state immunization registry (ImmTrac2) to locate vaccines administered elsewhere?

2. Do you/staff collect ImmTrac2 consent from adult patients?

3. Do you provide patients with documentation of their vaccine record?
1. Record vaccination in patients’ medical records
2. Provide documentation of vaccines received to patients for their personal records
3. Document vaccinations in immunization information systems (IIS)
   a. ImmTrac2

Why use ImmTrac2?

- Consolidates vaccination records for your patients
- Helps you assess your patients’ immunization status
- Ensures your patients have completed necessary vaccine series reducing:
  - Chances for unnecessary doses of vaccine
  - Missed opportunities to provide vaccines
- Offers a reminder and recall system for notifications to send to patients
Thank You!

Denise Starkey, MPH, MA
Denise.Starkey@dshs.texas.gov
Tools for Implementing the Standards for Adult Immunization Practice

Georgia Armstrong, BSN, RN
Immunization Supervisor for People’s Community Clinic
(Recently retired)
Make adult vaccination a Standard of Care in your practice.

Use each clinic encounter to assess vaccine status & when appropriate vaccinate.

Make sure the right patient, gets the right vaccine at the right time.
Standards for Adult Immunization Practice:

1. Assess
2. Recommend
3. Administer/Refer
4. Document
Awareness For all of your staff – not just the medical team – that:

Vaccines work
Vaccines are safe
Vaccines are important throughout the life span
Vaccines are a key component of basic medical care
Vaccines are available
And
It takes teamwork to have a successful Immunization program.
Methods to increase Awareness & Cooperation

**Excite**

**Educate** &

**Ease**

the process of offering vaccines: provide tools to streamline & uncomplicate the process.
Excite

Show them how vaccines have been so successful in reducing disease.

https://www.behance.net/gallery/2878481/Vaccine-Infographic
This was the data used to support the Vaccine Infographic on the previous slide.

### Impact of Vaccines in the 20th & 21st Centuries

#### Comparison of 20th Century Annual Morbidity & Current Morbidity

<table>
<thead>
<tr>
<th>Disease</th>
<th>20th Century Annual Morbidity</th>
<th>2010 Reported Cases</th>
<th>% Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallpox</td>
<td>29,005</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>Diphtheria</td>
<td>21,053</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>Pertussis</td>
<td>200,752</td>
<td>21,291</td>
<td>89%</td>
</tr>
<tr>
<td>Tetanus</td>
<td>580</td>
<td>8</td>
<td>99%</td>
</tr>
<tr>
<td>Polio (paralytic)</td>
<td>16,316</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>Measles</td>
<td>530,217</td>
<td>61</td>
<td>&gt;99%</td>
</tr>
<tr>
<td>Mumps</td>
<td>162,344</td>
<td>2,528</td>
<td>98%</td>
</tr>
<tr>
<td>Rubella</td>
<td>47,745</td>
<td>6</td>
<td>&gt;99%</td>
</tr>
<tr>
<td>CRS</td>
<td>152</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>Haemophilus influenzae (&lt;5 years of age)</td>
<td>20,000 (est.)</td>
<td>270 (16 serotype b and 254 unknown serotype)</td>
<td>99%</td>
</tr>
</tbody>
</table>

Sources:
* JAMA. 2007;298(18):2155-2163.
† CDC. MMWR January 7, 2011;59(52):1704-1716. (Provisional MMWR week 52 data)

#### Comparison of Pre-Vaccine Era Estimated Annual Morbidity with Current Estimate

<table>
<thead>
<tr>
<th>Disease</th>
<th>Pre-Vaccine Era Annual Estimate</th>
<th>2008 Estimate</th>
<th>% Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hepatitis A</td>
<td>117,333*</td>
<td>11,049</td>
<td>91%</td>
</tr>
<tr>
<td>Hepatitis B (acute)</td>
<td>66,232*</td>
<td>11,269</td>
<td>83%</td>
</tr>
<tr>
<td>Pneumococcus (invasive) All ages</td>
<td>63,067*</td>
<td>44,000†</td>
<td>30%</td>
</tr>
<tr>
<td>&lt;5 years of age</td>
<td>16,069†</td>
<td>4,167†</td>
<td>74%</td>
</tr>
<tr>
<td>Rotavirus (hospitalizations &lt;5 years of age)</td>
<td>62,500†</td>
<td>7,500†</td>
<td>88%</td>
</tr>
<tr>
<td>Varicella</td>
<td>4,085,120*</td>
<td>449,363</td>
<td>89%</td>
</tr>
</tbody>
</table>

Sources:
* JAMA. 2007;298(18):2155-2163.
‡ 2008 Active Bacterial Core surveillance
§ CDC. MMWR. February 6, 2009 / 58(RR02); 1-25
□ New Vaccine Surveillance Network

January 2011
Here’s Why Vaccines Are So Crucial

Excite

Article in the November 2017 issue of National Geographic magazine.

Excite Make it personal - share stories about unprotected people who have contracted vaccine preventable diseases.

www.immunize.org For the Public: Personal Testimonies
Excite your vaccinators.

- Let them know how important they are.
- Vaccines do not work if they are not administered.
- By the power of their thumb-injecting vaccines – they will be saving lives.
- The more thumbs the better.

Ya gotta give the vaccine to make it effective.
Educate

Posters in waiting rooms & exam rooms:

- educate patients & general staff
- act as a reminder to MAs, Nurses & Providers to discuss with the patient.

Texas Medical Association’s (TMA) Be Wise Immunize Website:

https://www.texmed.org/bewise

HPV vaccine prevents cancers.

- The HPV vaccine protects against 7 strains of HPV that can cause cancer and 2 that cause genital warts.
- Your child’s best defense: Get the vaccine in adolescence before being exposed to HPV.

All adolescents should get the HPV vaccine.

- Recommended for 11- and 12-year-old girls and boys.
- 2 shots before age 15 give full protection.

Older teens and young adults can get immunized, too.

- It’s not too late to start or finish getting the HPV shots.
- Males and females can get the shots until age 26.
- 3 shots are needed for full protection if starting them at age 15 or older.

Be Wise — Immunize™

Be Wise — Immunize is a joint initiative led by the Texas Alliance for Tobacco Control, the Texas AIDS Healthcare Foundation, and the Texas Medical Association, along with guidance from the U.S. Centers for Disease Control and Prevention.

Be Wise — Immunize is supported by a financial grant from the Texas Medical Foundation.

Educate

Educate

National Immunization Awareness Month every August

Send out weekly e-mails in August to staff using the promo tools from: https://www.nphic.org/niam

Send out the link to the CDC’s Adult Vaccine Quiz:
https://www2.cdc.gov/nip/adultimmsched/default.asp

Post the vaccine promo & quiz on your clinic’s website/facebook page!
Educate

Resources for education/promo ideas during flu season:


https://www.cdc.gov/flu/resource-center/partners/promote-vaccination.htm

https://www.familiesfightingflu.org/

Educate

Education for Medical Staff:
The Resources from the: Immunization Action Coalition (IAC) [www.immunize.org](http://www.immunize.org)
Educate

Encourage your medical staff who are most involved with vaccines to subscribe to:

IAC EXPRESS
Weekly Email News and Information
Join more than 50,000 subscribers today!

Stay current! Every week, IAC Express is delivered directly to your email box. It features important immunization developments, such as the latest vaccine recommendations and licensures, important journal articles, practical vaccination resources, conference announcements, and more.
Educate
Inform providers & nurses of Vaccine Continuing Education Opportunities:

Links for CMEs, CEUs, CNEs:

CDC:
  • [https://www.cdc.gov/vaccines/ed/index.html](https://www.cdc.gov/vaccines/ed/index.html)

Immunization Action Coalition (IAC):
  • [http://www.immunize.org/resources/contedu.asp](http://www.immunize.org/resources/contedu.asp)

Texas DSHS:
  • [www.vaccineeducationonline.org](http://www.vaccineeducationonline.org)
Educate your Vaccinators MAs & Nurses:

This training video can be ordered from the Immunization Action Coalition:

Training Video: “Immunization Techniques – Best Practices with Infants, Children, and Adults”

Order your copy of the California Department of Public Health, Immunization Branch’s award-winning training video, “Immunization Techniques: Best Practices with Infants, Children, and Adults.” The 25-minute DVD can be used to train new employees and to refresh the skills of experienced staff on administering injectable, oral, and nasal-spray vaccines to children, teens, and adults.

To order, visit www.immunize.org/shop, or use the order form on page 19.

For healthcare settings in California, contact your local health department immunization program for a free copy.

DVD: $17 each (includes shipping) Quantity discounts are available.

www.immunize.org/shop
Educate your vaccinators, MAs & Nurses:

http://eziz.org/ Website for California VFC Program

The trainings are independent online study.
Certificates of completion are available if post test is passed by 80%
Educate your Vaccinators MAs & Nurses:

http://eziz.org/eziz-training/

- Storing Vaccines (20 min.)
- Preparing Vaccines (25 min.)
- Administering Vaccines (16 min.)

- https://www2.cdc.gov/vaccines/ed/shvideo/shvideo.asp

Find this on IAC website: immunize.org under Clinic Resources: Storage & Handling.
Educate
Post this easy to read “Vaccine Handling Tips” on each vaccine storage unit.

**Vaccine Handling Tips**

**Remember:** Improperly stored or outdated vaccines won’t protect your patients!

**Freezer**
- MMRI
- MMR
- Varicella
- Zoster
- Maintain freezer temperature between -50° and -15°C (58° and 5°F).

**Refrigerator**
- DTaP, Td, T
- Hepatitis A
- Haemophilus B
- H. influenza type b (Hib)
- Human papilloma virus
- Influenza
- Polio (IPV)
- MMR
- Meningococcal
- Pneumococcal
- Rotavirus
- Maintain refrigerator temperature between 2° and 8°C (36° and 46°F). Aim for 5°C (40°F).

**Manage vaccine inventories.**
Inventory your vaccine supplies at least monthly and before placing an order. Expired vaccine must never be used and it becomes “cash in the trash.”

**Always use the vaccine with the soonest expiration date first.**
Move vaccine with the soonest expiration date to the front of the storage unit and mark it to be used first. These actions help ensure it will be picked up first by someone selecting vaccine from the unit.

**Store vaccine appropriately.**
Place vaccines in refrigerator or freezer immediately upon receiving shipment. Keep vaccine vials in their original packaging. Place vaccine in clearly labeled wire baskets or other open containers with a 2-3” separation between baskets and 4” from wall of unit. Separate or clearly mark vaccines to distinguish those that were supplied from your state’s Vaccines for Children program (or other state-funded source) from those that were privately purchased. Do not store vaccines in the door or on the floor of the unit.

**Stabilize temperatures.**
Store ice packs in the freezer and large jugs of water in the refrigerator along with the vaccines. This will help maintain a stable, cold temperature in case of a power failure or if the refrigerator or freezer doors are opened frequently or are accidentally left open. Because frequent opening of either the refrigerator or freezer door can lead to temperature variations that could affect vaccine efficacy, you should not store food or beverages in the refrigerator or freezer.

**Safeguard the electrical supply to the refrigerator.**
Make sure the refrigerator and freezer are plugged into outlets in a protected area where they cannot be disconnected accidentally. Label the refrigerator, freezer, electrical outlets, fuses, and circuit breakers on the power circuit with information that clearly identifies the perishable nature of vaccines and the immediate steps to be taken in case of interruption of power.

If your building has auxiliary power, use the outlet supplied by that system.

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*MMRI may be stored in either the freezer or the refrigerator.

*Refer to package insert for specific instructions on storage of each vaccine.

*If you have questions about the condition of this vaccine upon arrival, immediately place the vaccine in recommended storage, mark it “do not use,” and then call your state health department or the vaccine manufacturer to determine whether the potency of the vaccine(s) has been affected. For other questions, call the Immunization Program at your state or local health department.

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Educate

Use this tool kit as the reference guide for proper vaccine storage.

Your Vaccine Coordinator should become very familiar with these guidelines.

https://www.cdc.gov/vaccines/hcp/admin/storage/index.html
Educate your vaccinators: MAs & Nurses

Assess skills of new trainees & use periodically as a competency assessment for experienced Vaccinators.

Excite √
Educate √
Ease....

Tips & tools used to help ease the process of offering adult vaccines. Addressing each Standard for Adult Immunizations.
Assessment Tool

Providers, Nurses, Medical Assistants:

- Vaccine schedule apps for smart phones:
  - Extensive list on Immunize.org: [http://www.immunize.org/resources/apps.asp](http://www.immunize.org/resources/apps.asp)
  - CDC app: [https://www.cdc.gov/vaccines/hcp/index.html](https://www.cdc.gov/vaccines/hcp/index.html)

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**CDC Vaccines Schedules App**

**Version 4.0.1**

Available for iOS and Android devices

Free access to recommended child and adult immunization schedules, tables and footnotes on your tablet or smartphone.

*[See download instructions.]*
Assessment Tool
Display Vaccine Info on a bulletin board or on a wall.
Assessment Tool

Post the “Vaccines for Adult” series to quickly determine what vaccines are indicated for specific conditions.

http://www.immunize.org/handouts/adult-vaccination.asp#patientschedules:
Scroll down to the Adult: Patient-friendly Schedules to find the handouts you want to post.
Highlight the vaccines specifically indicated.

The MAs & Nurses will be able can see at a quick glance what is recommended for specific conditions.
Assessment Tool

Post “infographics” that help to interpret confusing vaccine schedules.

Ex: Pneumococcal Vaccine Timing for Adults.

Pneumococcal Vaccine Timing – For Adults:
http://eziz.org/assets/docs/IMM-1152.pdf (Calif. Dept. of Public Health)
Assessment Tool

Of course Post the:

**ACIP Recommended Immunization Schedule.**

Emphasize the importance of reading the Footnotes!!

[https://www.cdc.gov/vaccines/schedules/hcp/adult.html](https://www.cdc.gov/vaccines/schedules/hcp/adult.html)
# Assessment Tool: IAC Summary of Recommendations for Adult Immunization


## Summary of Recommendations for Adult Immunization (Age 19 years and older)

<table>
<thead>
<tr>
<th>Vaccine name and route</th>
<th>People for whom vaccination is recommended</th>
<th>Schedule for vaccination administration (any vaccine can be given with another unless otherwise noted)</th>
<th>Contraindications and precautions (mild illness is not a contraindication)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza Inactivated Influenza Vaccine (IIV)</td>
<td>For people through age 18yrs, consult &quot;Summary of Recommendations for Adult Immunization&quot; at <a href="http://www.immunize.org/catg.d/p2011.pdf">www.immunize.org/catg.d/p2011.pdf</a></td>
<td>Give 1 dose every year in the fall or winter. Begin vaccination services as soon as vaccine is available and continue until the supply is depleted. Continue to give vaccine to unimmunized adults throughout the influenza season (including when influenza activity is present in the community) and at other times when the risk of influenza exists.</td>
<td>Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine, to any of its components, including egg protein. Adults who have experienced a severe reaction to eggs involving symptoms other than hives may receive any age-appropriate influenza vaccine, except RIV3 which does not contain egg protein. The vaccine should be administered in a medical setting (e.g., a health department or physician office) and should be supervised by a healthcare provider who is able to recognize and manage severe allergic conditions.</td>
</tr>
<tr>
<td>Td, Tdap (Tetanus, Diphtheria, pertussis)</td>
<td>For people through age 18yrs, consult &quot;Summary of Recommendations for Adult Immunization&quot; at <a href="http://www.immunize.org/catg.d/p2011.pdf">www.immunize.org/catg.d/p2011.pdf</a></td>
<td>For people who are unvaccinated or behind, complete the primary Td series (3 doses with an interval of 1-2 months between doses #1 and #2, and an interval of 6-12 months between doses #2 and #3): Substitute a one-time dose of Tdap for one of the doses in the series, preferably the first. Give Tdap booster every 10yrs after the primary series has been completed.</td>
<td>Previous severe allergic reaction (e.g., anaphylaxis) to this vaccine or to any of its components. For Tdap only, history of encephalopathy not attributable to an identifiable cause, within 7 days following DTP/DTPa, or Tdap.</td>
</tr>
<tr>
<td>DTaP (Diphtheria, tetanus, and破伤风 toxins)</td>
<td></td>
<td></td>
<td>Moderate or severe acute illness with or without fever. History of Guillain-Barré syndrome (GBS) within 6 weeks following previous influenza vaccination. For adults who experience only adverse reactions to eggs, give any age-appropriate influenza vaccine.</td>
</tr>
</tbody>
</table>


This document was adapted from the recommendations of the Advisory Committee on Immunization Practices (ACIP). To obtain copies of these recommendations, visit CDC’s website at www.cdc.gov/vaccines or the Immunization Action Coalition (IAC) website at www.immunize.org.cop.

This table is revised periodically. Visit IAC’s website at www.immunize.org to make sure you have the most current version.


Always check the revision date in the lower right hand corner.
Assessment Tool – Pre Appointment Prep: use tools to help clinical staff easily determine what vaccines are indicated.

Please take a moment to fill out the questionnaire below to help us determine which vaccines may be recommended for you based on your specific health status, age, and lifestyle. Keep in mind that this list may not include every vaccine you need.

<table>
<thead>
<tr>
<th>Check all that apply to you</th>
<th>Let’s discuss these recommended vaccines</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ I am 19 years or older</td>
<td>• Seasonal Flu (Influenza) vaccine every year</td>
</tr>
<tr>
<td>□ I am 60 years or older</td>
<td>• Shingles (Zoster) vaccine*</td>
</tr>
<tr>
<td>□ I am 65 years or older</td>
<td>• Both types of pneumococcal vaccines (one dose of conjugate first, then one dose of polysaccharide 6-12 months later)</td>
</tr>
<tr>
<td>□ I didn’t receive the Human papillomavirus (HPV) vaccine series as a child</td>
<td>• HPV vaccine series (3 dose series)</td>
</tr>
<tr>
<td>□ I was born in the US in 1957 or after and don’t have immunity against measles, mumps, and rubella</td>
<td>• Measles, mumps, rubella (MMR) vaccine* (one dose)</td>
</tr>
<tr>
<td>□ I was born in the US in 1980 or after and don’t have immunity against chickenpox</td>
<td>• Varicella “chickenpox” vaccine*</td>
</tr>
<tr>
<td>□ I am a healthcare worker</td>
<td>• Hepatitis B vaccine series</td>
</tr>
<tr>
<td>□ I have heart disease, asthma or chronic lung disease</td>
<td>• Pneumococcal polysaccharide vaccine</td>
</tr>
</tbody>
</table>

**PREGNANT WOMEN SHOULD GET A TDAP VACCINE DURING EACH PREGNANCY**

**Which Vaccines Do I Need Today?**

Vaccines are an important part of helping you stay healthy. Which of these recommended vaccines do you need? Check the boxes that apply to you, and then talk this over with your healthcare provider.

**Influenza (“Flu”) vaccine**
- I have had my flu vaccine this season (early fall through late spring).

**Pneumococcal (“pneumonia”) vaccine [Pneumococcal 13 (PCV13) and Pneumovax 23 (PPSV23)]**
- I am age 65 or older and:
  - □ I have never received any pneumonia vaccine (or I don’t remember if I have).
  - □ I have received only 1 pneumonia vaccine since I turned 65.
  - □ I received 1 or 2 doses of pneumonia vaccine before I turned 65, and it’s been more than 5 years since I received my last dose.
- I am younger than age 65 and:
  - □ I have never received any pneumonia vaccine AND at least one of the following applies to me:
    - I smoke cigarettes and I am age 19 years or older.
    - I have a chronic disease of the heart, lung (including asthma, if I am age 19 years or older), liver, or kidneys, or I have sickle cell disease.
    - I have diabetes or alcoholism.
    - I have a weakened immune system due to cancer, Hodgkin’s disease, leukemia, lymphoma, multiple myeloma, kidney failure, HIV/AIDS or receiving radiation therapy or taking a medicine that affects my immune system.
    - I live in a nursing home or other long-term care facility.
    - □ I have had an organ or bone marrow transplant.
    - □ I have had my spleen removed or have had a cochlear (inner ear) implant or have been told by a healthcare provider that I have leaking spinal fluid.

**Tetanus, diphtheria, and pertussis (“whooping cough”)-containing vaccine (e.g., DTP, DTaP, Tdap, or Td)**
- □ I have never received Tdap vaccine (or I don’t remember if I have).

**Additional Information**

Assessment Tool

As part of the Pre Appointment Prep -
The patient was looked up in the State Wide Immunizations Registry: ImmTrac 2

ImmTrac2 is a no cost service that stores immunization records from multiple sources in one centralized system.
Compare the ImmTrac record to what is in the chart; make updates as necessary.

Contact ImmTrac2 Customer Support at (800) 348-9158 or at ImmTrac2@dshs.texas.gov
Consent needed for ImmTrac2

- Texas law requires written consent for ImmTrac2 participation.
- Patient must sign an ImmTrac2 Consent form.
- Clinic needs to enter the patient consent into ImmTrac2.
- A scanned or hard copy of the consent must be kept on file at the clinic.
- Keep blank copies of form on hand to fill out at appointments.
- Get new patients to fill out consent at initial registration.
- https://www.dshs.texas.gov/immunize/immtrac/forms.shtm
### Assessment Tool

Screen for Contraindications by using the Screening Checklist from IAC.

**www.immunize.org**

http://www.immunize.org/clinic/screening-contraindications.asp


**Link for inactivated flu vaccine screening checklist:**


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### Screening Checklist for Contraindications to Vaccines for Adults

For patients, the following questions will help us determine which vaccines you may be given today. If you answer "yes" to any question, it does not necessarily mean you should not be vaccinated. It just means additional questions must be asked. If a question is not clear, please ask your healthcare provider to explain it.

1. **Are you sick today?**
   - yes □  no □  don't know □

2. **Do you have allergies to medications, food, a vaccine component, or latex?**
   - yes □  no □

3. **Have you ever had a serious reaction after receiving a vaccination?**
   - yes □  no □

4. **Do you have a long-term health problem with heart disease, lung disease, asthma, kidney disease, metabolic disease (e.g., diabetes), anemia, or other blood disorder?**
   - yes □  no □

5. **Do you have cancer, leukemia, HIV/AIDS, or any other immune system problem?**
   - yes □  no □

6. **In the past 3 months, have you taken medications that affect your immune system, such as prednisone, other steroids, or anticoagulant drugs, or for the treatment of rheumatoid arthritis, Crohn’s disease, or psoriasis; or have you had radiation treatments?**
   - yes □  no □

7. **Have you had a seizure or a brain or other nervous system problem?**
   - yes □  no □

8. **During the past year, have you received a transfusion of blood or blood products, or been given immune (gamma) globulin or an anticoagulant drug?**
   - yes □  no □

9. **For women: Are you pregnant or is there a chance you could become pregnant during the next month?**
   - yes □  no □

10. **Have you received any vaccinations in the past 4 weeks?**
    - yes □  no □

---

**Form completed by:____________________ Date:____________________**

**Form reviewed by:____________________ Date:____________________**

**Did you bring your immunization record card with you?**

- yes □  no □

It is important for you to have a personal record of your vaccinations. If you don’t have a personal record, ask your healthcare provider to give you one. Keep this record in a safe place and bring it with you every time you seek medical care. Make sure your healthcare provider records all your vaccinations on it.

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**Screening checklist for contraindications to vaccines for adults**

Form your patients fill out to help you evaluate which vaccines can be given at that day’s visit, includes information sheet for professionals [#P4065]

**Languages:** Spanish • Arabic • Chinese • French • Hmong • Korean • Russian • Turkish • Vietnamese
Assessment Tool

As a reference for your vaccinators (MAs or Nurses): Post the form that gives the reason why a “Yes” answer on the questionnaire may be a contraindication to a certain vaccine. It is page 2 of the screening tool.
Assessment Tool
Establish Standing Orders for Vaccine

Standing orders can increase your immunization rates.

It increased our Influenza, Tdap as well as Hep B vaccine rates for our adults. The MAs were able to assess the need, screen for contraindications, & administer the vaccine while the patient was waiting to be seen by the provider.

http://www.immunize.org/standing-orders/
**Recommendation Tool**

Use Buttons or stickers for front desk/clinical staff.

If you cannot find buttons or stickers to order, make your own.

<table>
<thead>
<tr>
<th>Be Wise</th>
<th>Don’t Wait</th>
<th>Prevent What is Preventable: Get Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunize Against the Flu!</td>
<td>Vaccines are not just for kids! Ask your provider what you need.</td>
<td>Protect yourself and your family. Get Vaccinated.</td>
</tr>
<tr>
<td>I got my flu vaccine. Did you get yours?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Recommendation Tool

Flu Prevention Promotional Materials from CDC for Health Care Providers

Use for your clinical staff to help promote vaccination among colleagues as well as to patients.

https://www.cdc.gov/flu/resource-center/freeresources/print/print-healthcare.htm
Recommendation Tool

• Use “On Hold” messaging:

  • “Did you know vaccines are important for adults too? Ask your provider what is recommended for you.”
  • “Ask your provider what vaccines you need when you are pregnant in order to help protect you & your baby”.
  • “It is flu season – protect yourself and loved ones by getting vaccinated. Spread the word not the disease”
Recommendation Tool
Get ideas for effective communication language from:


- [https://www.izsummitpartners.org/content/uploads/2014/05/AdultVaccineMessaging2.pdf](https://www.izsummitpartners.org/content/uploads/2014/05/AdultVaccineMessaging2.pdf)
  National Adult and Influenza Immunization Summit.

- [https://www.nphic.org/niam](https://www.nphic.org/niam)
  National Immunization Awareness Month
Recommendation Tool

- [https://www.cdc.gov/hpv/hcp/adolescent-messaging.html](https://www.cdc.gov/hpv/hcp/adolescent-messaging.html)
  **Adolescent Vaccination Messaging for Practice Hold Lines**

- [https://www.cdc.gov/vaccines/hcp/adults/for-patients/adults-all.html](https://www.cdc.gov/vaccines/hcp/adults/for-patients/adults-all.html)

**Educating Adult Patients: Vaccination Resources**

**Vaccination Radio PSAs**
These public service announcements (PSAs) can be downloaded and played in your office or for patients that are on hold while calling your office.
Recommendation Tool

Have the **provider** say:

“As your medical provider I recommend that you receive __________ vaccine.”

Many times that is all that it takes.

Your handout has some additional tips from the CDC as well as tips for addressing common questions.

[www.cdc.gov/vaccines/hcp/adults](http://www.cdc.gov/vaccines/hcp/adults)
Vaccine Administration Tool

Train Staff & assess skills periodically.

Have all supplies readily available & keep well stocked.

Label/color code your vaccine holders to indicate what inventory they are: ASN, VFC or Private & type of vaccine

Make sure there is adequate room to prepare vaccines.

http://www.immunize.org/clinic/storage-handling.asp
Vaccine Administration Tool

Helpful info to post in your Vaccine Info area:

Dose & Route Chart:

Administering vaccines to adults: dose, route, site, and needle size
One page reference table [#P3084]

How to Administer Intramuscular and Subcutaneous Vaccine Injections to Adults

**Intramuscular (IM) Injections**

Administer these vaccines via IM route:
- Hepatitis A (HepA)
- Hepatitis B (HepB)
- Human papillomavirus (HPV)
- Influenza vaccine, injectable (IY)
- Influenza vaccine, recombinant (IIV)
- Meningococcal conjugate (MCV)
- Meningococcal serogroup B (MbB)
- Pneumococcal conjugate (PCV)
- Pneumococcal polysaccharide (PPSV23)
  - may also be given Subcut
- Polio (IPV) – may also be given Subcut
- Tetanus, diphtheria, (Td), or with pertussis (Tdap)

**Injection site**
Give in the central and thickest portion of the deltoid muscle – above the level of the armpit and approximately 2–3 fingerbreadths (~2") below the acromion process. See the diagram. To avoid causing an injury, do not inject too high (near the acromion process) or too low.

**Needle size:**
22–25 gauge, 1–1 1/2" needle (see note at right)

**Needle insertion:**
- Use a needle long enough to reach deep into the muscle.
- Insert the needle at a 90° angle to the skin with a quick thrust.
- Separate two injections given in the same deltoid muscle by a minimum of 1".

**Subcutaneous (Subcut) Injections**

Administer these vaccines via Subcut route:
- Measles, mumps, rubella (MMR)
- Meningooccal polysaccharide (MCV)
- Pneumococcal polysaccharide (PPSV23)
  - may also be given IM
- Polio (IPV) – may also be given IM
- Varicella (chickenpox)
- Zoster (HZV, shingles)

**Injection site**
Give in fatty tissue over the triceps. See the diagram.

**Needle size:**
23–25 gauge, 5/8" needle

**Needle insertion:**
- Pinch up on the tissue to prevent injection into the muscle. Insert the needle at a 45° angle to the skin.
- Separate two injections given in the same area of fatty tissue by a minimum of 1".

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Vaccine Administration Tool

Helpful info to post in your Vaccine Info area:

Sites to give the vaccine

How to administer intramuscular and subcutaneous vaccine injections to adults

Vaccine Administration Tool

Forms we created in-house—combining information from a Texas DSHS poster & a immunize.org handout to help guide vaccinators re multiple injections in the same arm.
Vaccine Administration Tool

Other guides helpful re multiple injection sites:

http://www.immunize.org/clinic/administering-vaccines.asp

http://eziz.org/assets/docs/IMM-718A.pdf
Vaccine Administration Tool

To help assure sure all of the doses in a vaccine series are administered:

• remind the patient when to return,
• write the return date on the checkout papers – so an appointment can be made.
• Make a note in the chart as to the when the next vaccines are due
• Have the patient address a reminder card while they are there & place the card in a tickler file to be mailed at the appropriate time.
• See if your EMR can generate reminders.
Referral

• Know what your community offers as far as pharmacies, State & Local Health Departments, & other providers who offer vaccines.

• Refer to the guidelines on your CDC handout under Vaccine Referral Options.

Documentation

Document vaccines:

• In Medical Record
• On Personal record
• In Statewide Registry: ImmTrac 2.
  • If you have electronic health records (EHR) – work with the ImmTrac2 staff about getting your vaccine data to be electronically transferred to ImmTrac2.
Vaccine forecasting help for your EHRs

If you use an EHR check with your vendor/programmer to see if they have heard of:

CDC's Clinical Decision Support for Immunization (CDSi)

They have training & specific programming tips to help your EHR vaccine recommendations align with the current ACIP recommendations.

https://www.cdc.gov/vaccines/programs/iis/cdsi.html
In Summary: Key components for implementing the Standards for Adult Immunization Practice:

Awareness for all levels of clinic staffing that:

- Vaccines work
- Vaccines are safe
- Vaccines are important throughout the life span
- Vaccines are a key component of basic medical care
- Vaccines are available
- It takes teamwork to have a successful vaccine program.
Then the 3 E’s:

**Excite**

**Educate &**

**Ease** the process of providing vaccines
List of helpful Resources:

• Texas DSHS Immunization website: https://www.dshs.texas.gov/immunize/
• Immunization Partnership: http://www.immunizeusa.org/
• CDC: https://www.cdc.gov/vaccines/index.html
• CDC’s Standards for Adult Immunization Practices: https://www.cdc.gov/vaccines/hcp/adults/for-practice/standards/index.html
• Immunization Action Coalition (IAC): www.immunize.org
• Texas Medical Association (TMA) Be Wise Immunize: https://www.texmed.org/bewise/
• National Adult & Influenza Immunization Summit: https://www.izsummitpartners.org/
  https://www.izsummitpartners.org/adult-immunization-standards/supporting-organizations/
• National Immunization Awareness: https://www.nphic.org/niam
Everything you need in one handy guide!

November 15, 2017

IAC releases newly updated 142-page book, *Vaccinating Adults: A Step-by-Step Guide*—available for purchase or free download

The Immunization Action Coalition (IAC) is delighted to announce the publication of its new book, *Vaccinating Adults: A Step-by-Step Guide (Guide)*.
We vaccinate to protect our future.

Created by Isaac Wexler-Mann in 1992, son of Deborah L. Wexler, MD the Executive Direction of the Immunization Action Coalition (IAC).