

i-RAISE the Rates

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Relevant commercial relationships appear in italics below each individual's name. All others have nothing to disclose.

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Adult Immunization Resource Hub

Developed as part of ACP's *I Raise the Rates* initiative.
Provides updated clinical information, patient education materials, quality improvement guidance and much more.
For more information, visit:

www.acponline.org/ai

ACP Advance QI Curriculum

Learn core QI skills that empower you to implement practice-changing initiatives to increase adult immunization rates in your practice.

Additional ACP Advance offerings include a physician-led coaching service and chronic care resources.

To learn more, visit:

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Financial Disclosures

None

Learning Objectives

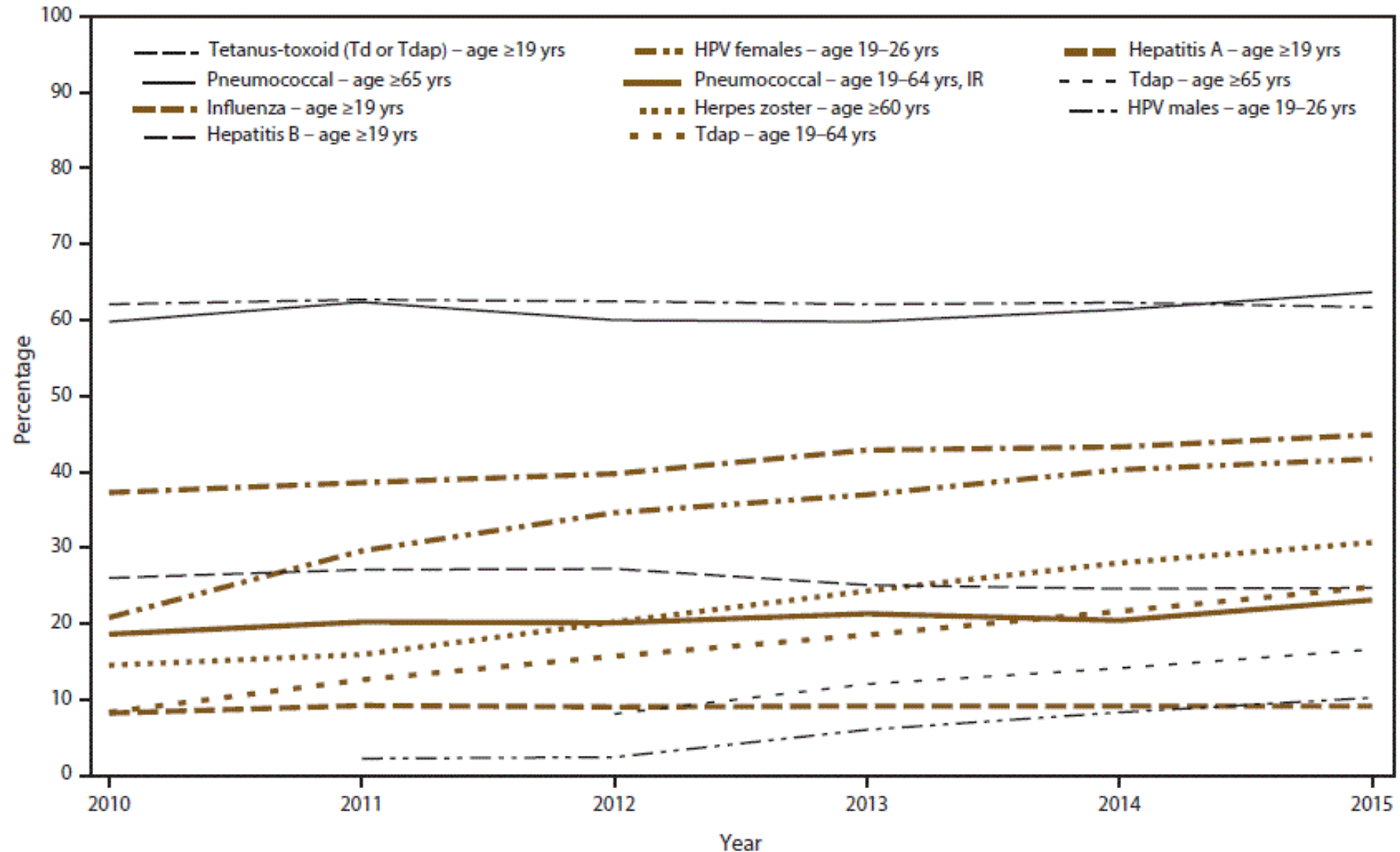
1. Overview of impact / effectiveness of immunizations
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6. Initiate “Team Huddles” for identifying opportunities to vaccinate
7. Recommend resources for patients to further understand importance of vaccinations

Impact of Vaccines During the Past 70 Years

Disease	Reported Cases (year)	Reported Cases (2012)	% Decrease in Reported Cases
Diphtheria	5796 (1950)	0	100%
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Vaccination Rates (2015)



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ACIP Recommendations

(June 2019)



Immunizations covered by ACIP

Anthrax

BCG

Cholera

DTaP/Tdap/Td

Hepatitis A

Hepatitis B

Hib

HPV

Influenza

Japanese Encephalitis

Measles, Mumps and Rubella

MMRV

Meningococcal

Pneumococcal

Polio

Rabies

Rotavirus

Smallpox (Vaccinia)

Typhoid

Varicella (Chickenpox)

Yellow Fever

Zoster (Shingles)

Hepatitis A

- Recommended routinely for:
 - children at age 12–23 months
 - for any person wishing to obtain immunity
 - Persons at increased risk for HAV infection:
 - international travelers to high or intermediate hepatitis A endemic area
 - men who have sex with men
 - users of injection and non-injection drugs
 - Persons with chronic liver disease or clotting factor disorders
 - persons who anticipate close contact with an international adoptee from a country of high or intermediate endemicity
- **Updates:**
 - all **persons with HIV aged ≥1 year**
 - Persons experiencing **homelessness** → higher risk for HAV infection & severe infection-associated outcomes
 - 1 dose of Hep A develops antibody within 4 weeks for >95% immunocompetent persons
 - *Loss to follow-up before HepA vaccine series completion should not be a deterrent* to initiating vaccine series → One dose of HepA vaccine provides personal protection & contributes to herd immunity, “although long-term protection might be suboptimal”

**7,000 Hep A
outbreak-associated
cases reported in US
as of Oct 2018
(vs. 1500+ in 2017)**

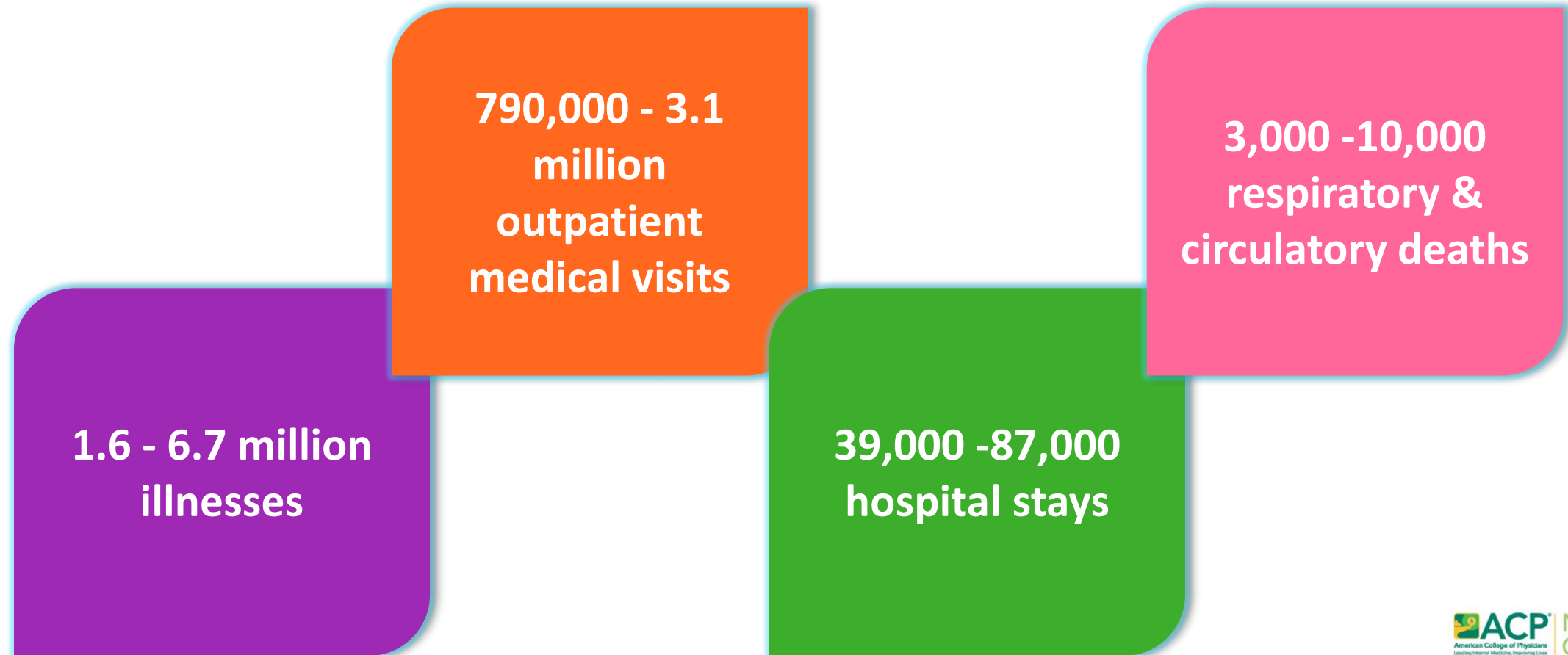
Human Papilloma Virus

- Impact Factor:
 - 33,700 cancers are caused by HPV in the United States each year
 - 12,900 oropharyngeal cancers among men and women
 - 10,800 cervical cancers among women
 - 6,000 anal cancers among men and women;
 - Prevalence of 4vHPV vaccine-type infection decreased 2013-2016 vs. pre-vaccine era
 - 11.5% to 1.8% among females aged 14 -19 years
 - 18.5% to 5.3% among females aged 20 - 24 years
- Recommended routinely for:
 - Females through age 26
 - Males through age 21
- Updates:
 - Catch-up vaccination for ALL persons through age 26 years who are not adequately vaccinated
 - vaccination based on shared clinical decision making for individuals aged 27 through 45 years who are not adequately vaccinated.
 - Consider: 1) risk and cost – insurers vary on coverage for >26 years old; 2) health economic modeling showed low gains after age 26 in QALY

33,700 HPV related cancers in US annually, majority are oropharyngeal cancers

Influenza

- Impact Factor: data reviewed over six influenza seasons from 2010/11 through 2015/16, show that vaccination prevented ... (for EACH season)



Influenza

- Impact Factor: For 2017/18 season
 - estimated overall effectiveness of vaccine = Inf. A (H1N1) 62%, Inf. B 50%
 - In 1 season, vaccine prevented:

**7.1 million
illnesses**

**3.7 million
outpatient
medical visits**

**109,000 hospital
stays**

**8,000 respiratory
& circulatory
deaths**

Influenza

- Annual influenza vaccination is recommended for **all persons aged 6 months and older who do not have contraindications**
- **Fluzone High-Dose (HD-IIV3)** vs. Fluzone Standard-Dose (SD-IIV3) → superior efficacy against laboratory-confirmed influenza in randomized trial conducted over two seasons (2011–12 and 2012–13) among 31,989 persons aged ≥ 65 years → may provide better protection than SD-IIV3 for this age group
- **Contraindications:**
 - Allergic reaction to any component
 - Guillain-Barre Syndrome within 6 weeks of influenza vaccination receipt
 - For Live Attenuated:
 - Aspirin- or salicylate-containing therapy in children and adolescents
 - Adults who are immunocompromised due to any cause (including immunosuppression caused by medications or HIV infection)
 - Close contacts and caregivers of severely immunosuppressed persons who require a protected environment
 - Pregnancy
 - Receipt of influenza antiviral medication within the past 48 hours

Influenza

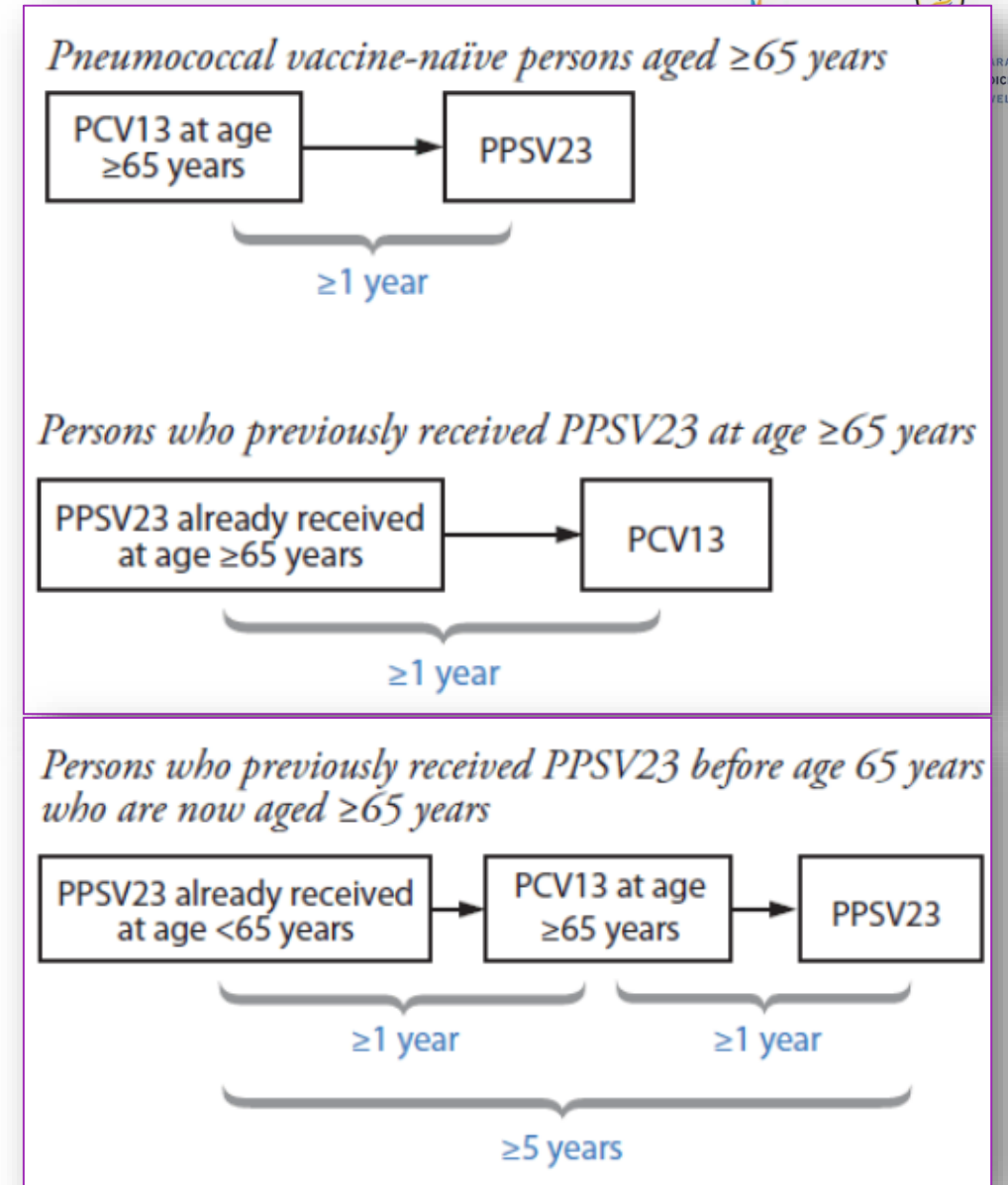
- **Timing:** vaccination should be offered **by the end of October**; however, vaccination should **continue to be offered as long as influenza viruses are circulating** and unexpired vaccine is available
- If **vaccine supply limited**, vaccination efforts should be focused upon:
 - Adults aged ≥ 50 years
 - Persons who are extremely obese (BMI ≥ 40 for adults)
 - Chronic disease burden (pulmonary inc. asthma), cardiovascular (excluding isolated HTN), renal, hepatic, neurologic, hematologic, or metabolic disorders (including diabetes mellitus)
 - Immunocompromised state (due to any cause, inc. medications or HIV infection)
 - Women who are or will be pregnant during the influenza season
 - Residents of nursing homes and other long-term care facilities
 - American Indians/Alaska Natives
 - Caregivers and contacts of those at risk:
 - Health care personnel
 - Household contacts and caregivers of children aged < 5 years, (esp. contacts of children aged < 6 months) and adults aged ≥ 50 years
 - Household contacts and caregivers of persons with medical conditions assoc. with increased risk of severe complications for influenza

Pneumococcal

Previous Schedule:

If patient >65 and received only one - PPSV23 or PCV13 – administer the other vaccine >1 year later

If patient <65 at time of PPSV23, administer PCV13 >1 year later, then re-immunize with PPSV23 >1 year later, total # of years between 2 PPSV23 should be >5 years



Pneumococcal

- Currently - all adults 65 years or older should receive a dose of **PPSV23**
- **Updates:**
 - **PCV13** based on shared clinical decision making for adults 65 years or older who do not have an immunocompromising condition and who have not previously received PCV13.
 - Transitioned from absolute recommendation to shared decision making
 - Justification: herd immunity from pediatric dosing of PCV13 may suffice in protection for those without immunocompromising conditions (All children in the United States should receive PCV13 at ages 2 months, 4 months and 6 months, and a booster dose between 12 and 15 months)

Zoster

- Two options: Zoster Vaccine Live (ZVL; **Zostavax**) and Recombinant Zoster Vaccine (RZV, **Shingrix** approved by FDA in 2017)
- **Updates:**
- ACIP recommends **RZV for use in immunocompetent adults aged ≥50 years.**
- Evidence supporting RZV:
 - **Prevention of herpes zoster** was:*
 - in persons aged **50–59 years 96.6%** (95% CI = 89.6–99.3)
 - in persons aged **60–69 years 97.4%** (95% CI = 90.1–99.7)
 - in persons aged **>70 years 91.3%** (95% CI = 86.8–94.5)
 - **Number of persons needed to be vaccinated** with RZV:
 - to prevent 1 case of herpes zoster 11–17
 - to prevent 1 case of postherpetic neuralgia 70–80

* two-part, phase III multicenter clinical trial, enrolled >30,000 participants, who were randomized 1:1 to receive vaccine or saline placebo; no direct comparison trials between ZVL & RZV;

Zoster - Recombinant Zoster Vaccine (RZV) considerations:

- **Dosing:** 2 doses (0.5 mL each), administered intramuscularly, 2–6 months apart
- **Timing of RZV for persons previously vaccinated with ZVL:** no data or theoretical concerns to indicate that RZV would be less safe or less effective when administered at an interval of <5 years
 - RZV should not be given <2 months after receipt of ZVL
- **Persons with a history of herpes zoster:** Herpes zoster can recur. Adults with a history of herpes zoster should receive RZV.
- **Immunocompromised persons:**
 - in persons taking **low-dose immunosuppressive therapy** (e.g., <20 mg/day of prednisone or equivalent or using inhaled or topical steroids) and persons anticipating immunosuppression or who have recovered from an immunocompromising illness → **recommend use of RZV**
 - **immunocompromised** persons, those on **moderate to high doses of immunosuppressive therapy** were excluded from the efficacy studies → **ACIP has not made recommendations**
- **Screening for a history of varicella** (either verbally or via laboratory serology) before vaccination for herpes zoster **is not recommended**

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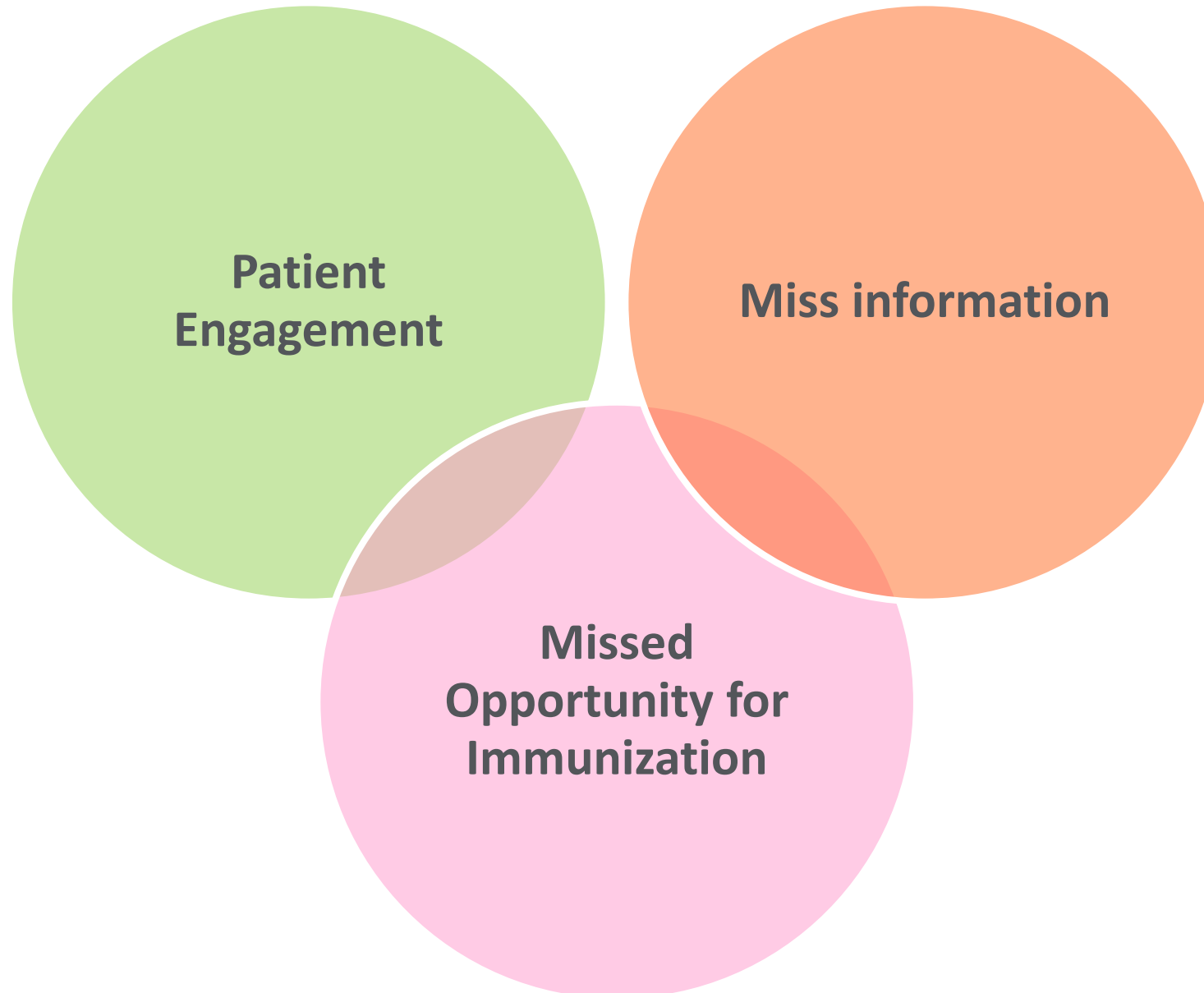
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Economic Impact of Under Vaccination

14.1 million cases of vaccine-preventable diseases attributable to unvaccinated adults in 2015

Total economic burden of approximately: **\$9 billion due to direct costs and productivity losses from vaccine-preventable diseases**

Barriers to Immunization



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NO LINK WAS FOUND

So people started investigating his claims

Following Dr. Wakefield's study, here's what other more rigorous studies found

1999

a study of
500 CHILDREN
no connection was found

NO LINK TO AUTISM WAS FOUND IN ANY CASE, IN ALL OF THE STUDIES.

“ They had conducted invasive investigations on the children without obtaining the necessary ethical clearances... picked and chose data that suited their case;
THEY FALSIFIED FACTS. ”

controlled case series studies, 5 time series trials, 2 ecological studies, 1 case cross-over trial covering over
14,700,000 CHILDREN

10,000,000 CHILDREN
Also found no connection

2004

Lancet released a statement **REFUTING** the original findings

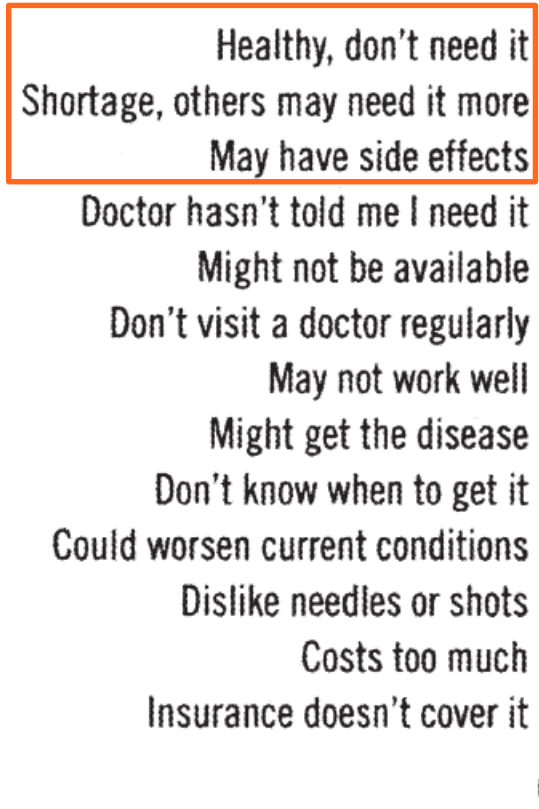
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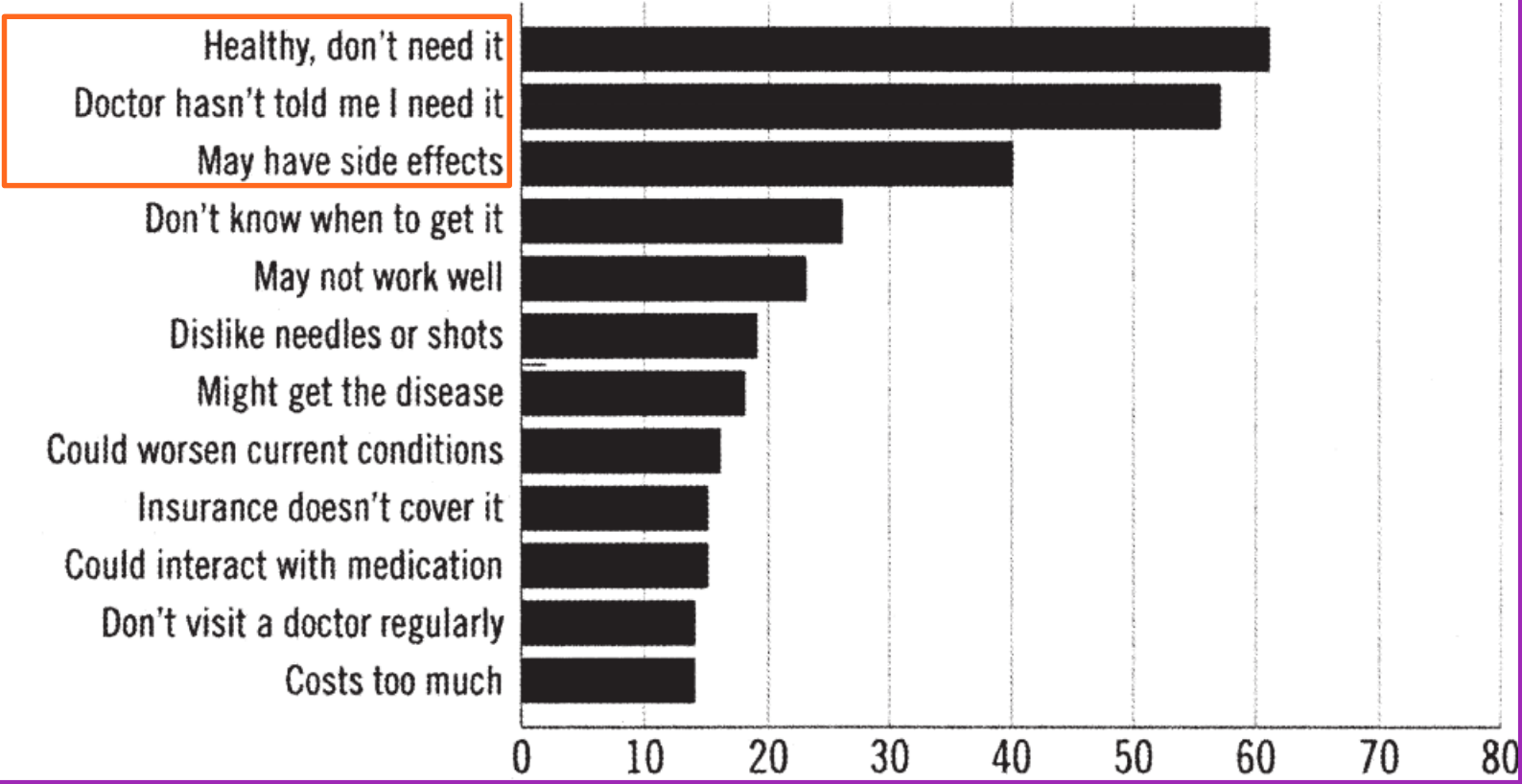
Patient Engagement

Is there a way to impact these reasons for under vaccination?

B. Influenza



C. Pneumococcal



Patient Engagement: Motivational Interviewing



In one study, enrollment specialists trained in MI **quadrupled** patient engagement rates in a health management program



Express Empathy : Build Rapport

Develop Discrepancy : Elicit Pros and Cons or understanding of patient

Roll with **Resistance** : Respect patient autonomy

Support Self-efficacy : Communicate that patient is capable of change

* Adapted from the ACP iRAISE the Rates Campaign

Patient Engagement: Motivational Interviewing *

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Spirit	Contrary Action
Collaboration: Patient is the expert and the Physician creates an atmosphere that is conductive rather than coercive and built on partnership	Confrontation: Patient is seen as impaired , unable to understand the situation and the Physician imposes reality of the situation
Evocation: Patient has resources and motivation to change within and the physician must evoke this from the patient	Education: Patient is assumed to lack knowledge necessary for changes to occur and MD enlightens patient by forcing education
Autonomy: Patient has right and capacity for self direction and the physician respects and affirms this	Authority: Patient is assumed to lack capacity for self direction and MD tells patient what he/she must do

Patient Engagement: Motivational Interviewing & OARS*

Open Questions: questions that cannot be answered with one word

Affirmations: statements that establish a respectful, collaborative relationship by acknowledging commitment by the patient for self care

Reflections: conversational statements that promote discussion


Summarization: Closing statements that seek to clarify and promote shared decisions made during a discussion & identify next steps

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Missed Opportunity: The Team Huddle

- **Team Huddles: short**, daily meetings with **a teamlet** (Physician/Clinician, Medical Assistant, and/or other support staff – RN)
- an opportunity for members from **inter-disciplinary fields** to come together and **anticipate agenda** for the patients' visits.
- usually last **less than 10 minutes**
- Is it Supported by data? YES! AHRQ best practice! 

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Miss Information: Resources for Patients

- Immunization contents: www.cdc.gov/vaccines/vac-gen/additives.htm
- CDC / immunization: www.immunize.org
- Families Fighting Flu www.familiesfightingflu.org
- Immunization Action Coalition: www.vaccineinformation.org
- WHO – Embrace the Facts: www.who.int/news-room/commentaries/detail/embrace-the-facts-about-vaccines-not-the-myths

Resources for Physicians

- ACP i-RAISE the Rates Webinars: <https://www.acponline.org/clinical-information/clinical-resources-products/adult-immunization/i-raise-the-rates/i-raise-the-rates-webinars>
- Team Huddles: AHRQ: <https://www.ahrq.gov/evidencenow/tools/team-huddles.html>
- Updates to ACIP Recommendations – Physician & Patient facing: <https://www.immunize.org>
- ACIP Guidelines & Recommendations: <https://www.cdc.gov/vaccines/hcp/acip-recs>

MOC Questions



MOC Question 1

The Advisory Committee on Immunization Practice for the Centers for Disease Control included a recommendation that physicians consider what patient factor as an indicator for hepatitis A vaccination?

- a) Age over 60
- b) Homelessness
- c) Home-bound
- d) Smoker

MOC Question 2

The Advisory Committee on Immunization Practice for the Centers for Disease Control included a recommendation that physicians consider the following at time of recommendation for Recombinant Zoster Vaccine (RZV)

- I. Dosing 2 doses (0.5 mL each), administered intramuscularly, 2–6 months apart
 - II. Adults with a history of herpes zoster should receive RZV.
 - III. Screening for a history of varicella (either verbally or via laboratory serology) before vaccination for herpes zoster is not recommended
-
- a) I only
 - b) I, II only
 - c) All of the above
 - d) None of the above

MOC Question 3

The Advisory Committee on Immunization Practice for the Centers for Disease Control included a recommendation that physicians consider Human Papilloma Virus vaccination for which patient?

- a) Females over the age 45
- b) Males through the age 65
- c) Only persons known to have HPV disease
- d) All persons through the age 26

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Human Papilloma Virus

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Questions/Comments/Feedback



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