

Preventing Cervical Cancer: How to Talk about the HPV Vaccine with Parents and Children

Noel T. Brewer, PhD
University of North Carolina



UNC

GILLINGS SCHOOL OF
GLOBAL PUBLIC HEALTH

Disclosure

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American Cancer Society

Centers for Disease Control and Prevention

Federal Drug Administration

GlaxoSmithKline

Kate B. Reynolds Foundation

Merck & Co.

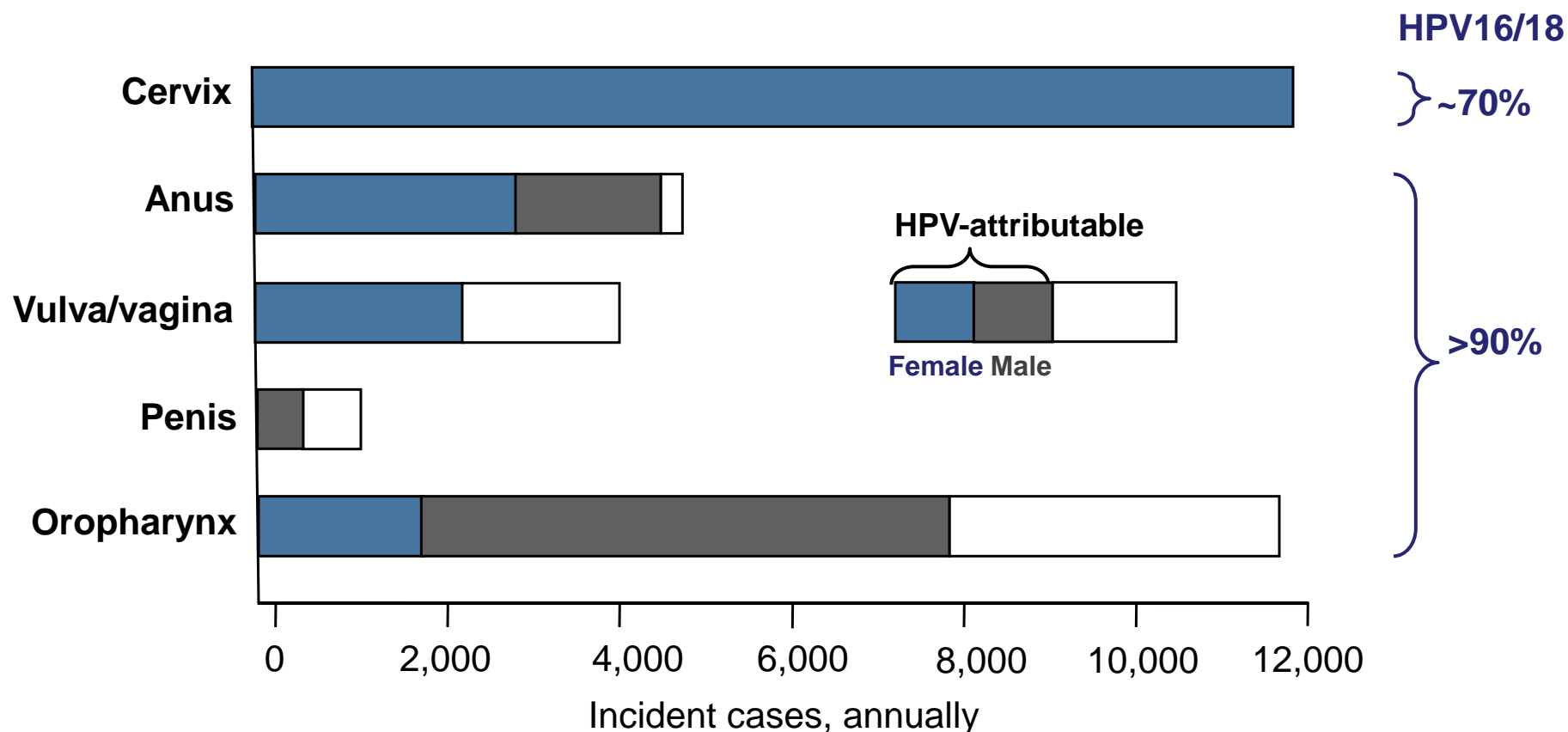
National Cancer Institute

Sanofi-Pasteur



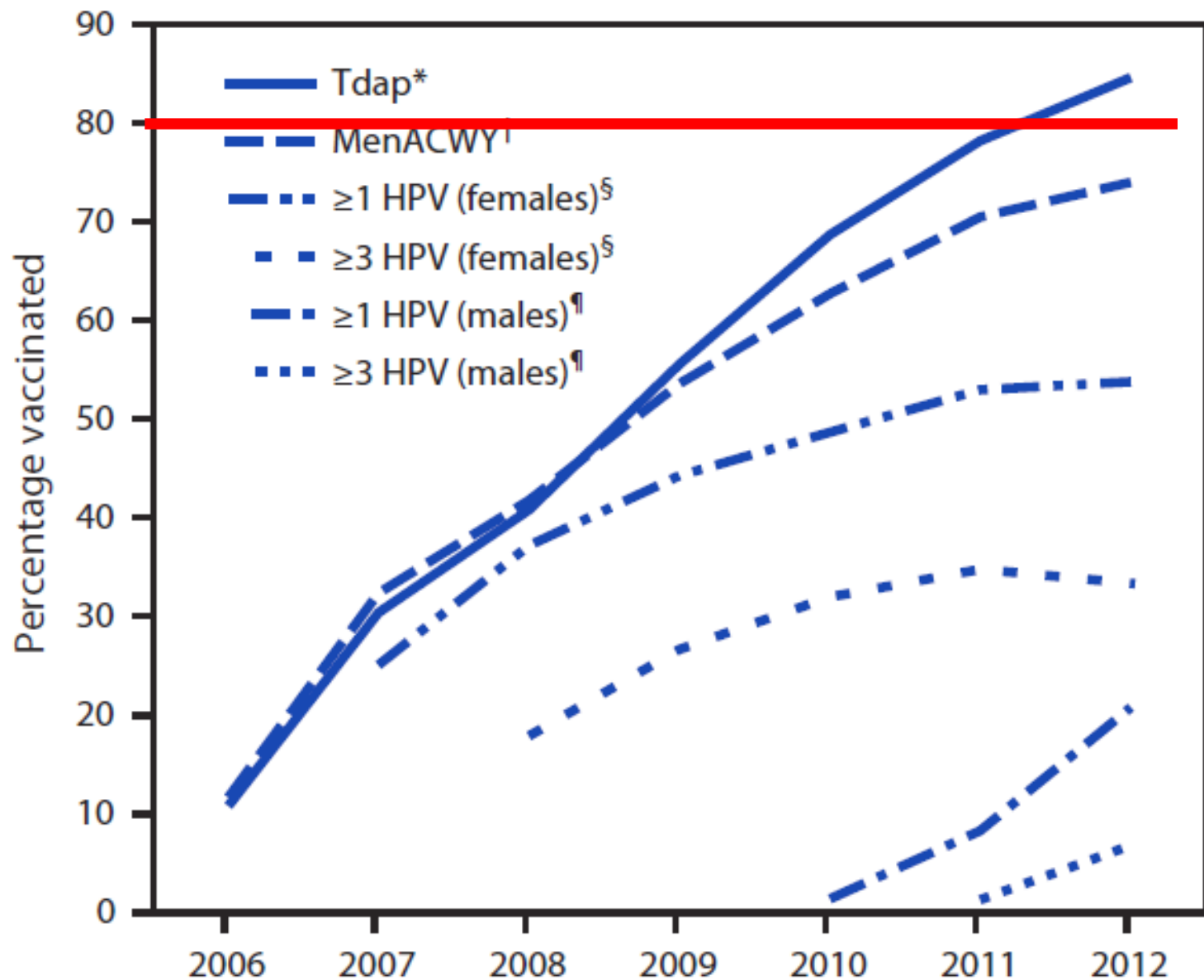
HPV-Attributable Cancers

United States, Annual Incidence, 2004-2008



Incidence of HPV-positive oropharynx cancer increased >3-fold 1988-2004

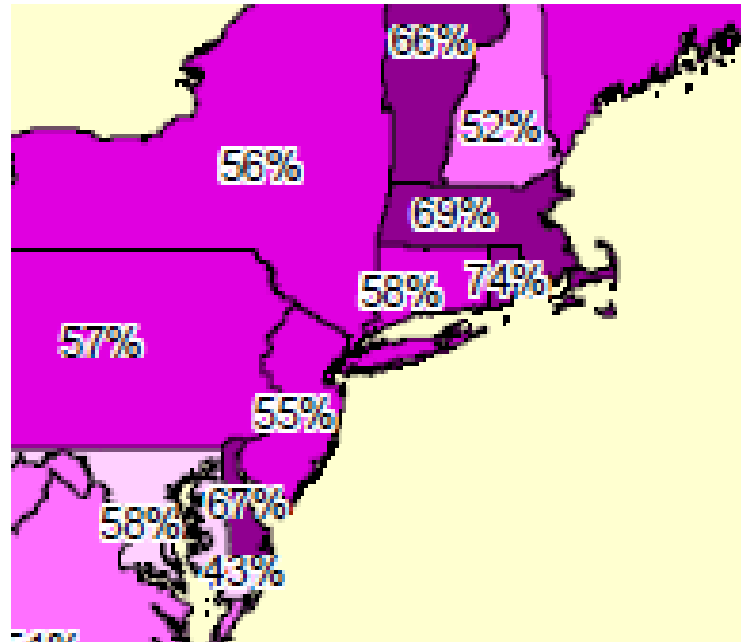
Sources: *MMWR*, 2012; Chaturvedi et al., *J Clin Oncol*, 2011; Gillison, Chaturvedi, & Lowy, *Cancer*, 2008.
Slide courtesy of Doug Lowy, NCI.



Healthy
People
2020
goal

Low HPV Vaccine Initiation

Females 13-17.
NIS Teen data
confirmed by
medical chart
review



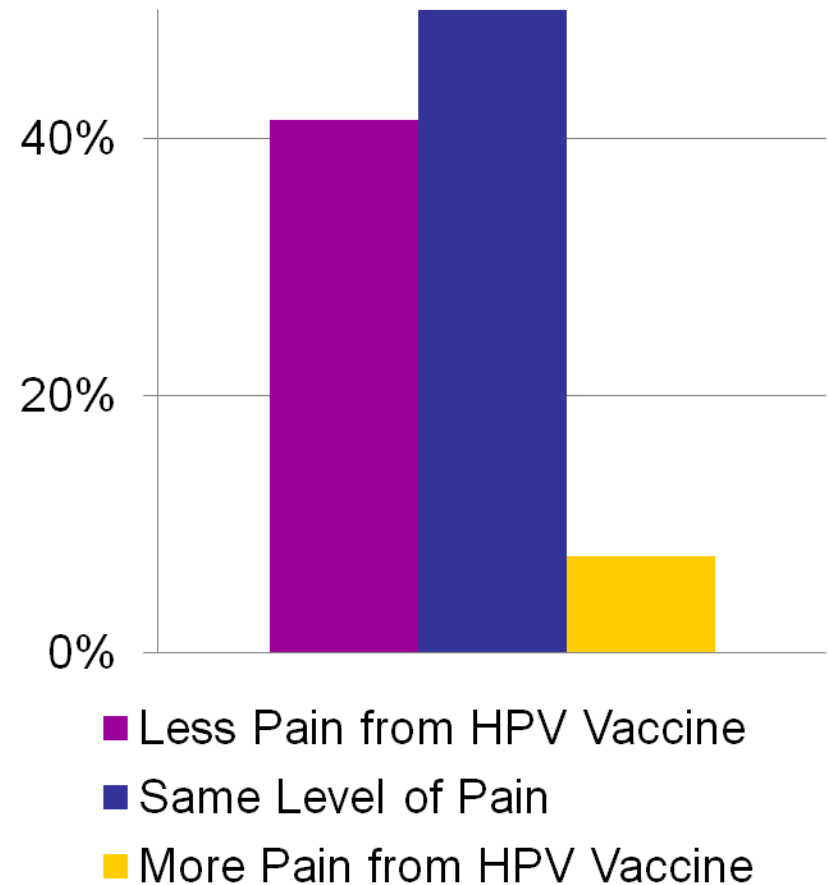
Distractions





Pain

HPV vaccine hurts less than
(or the same as)
other adolescent vaccines.

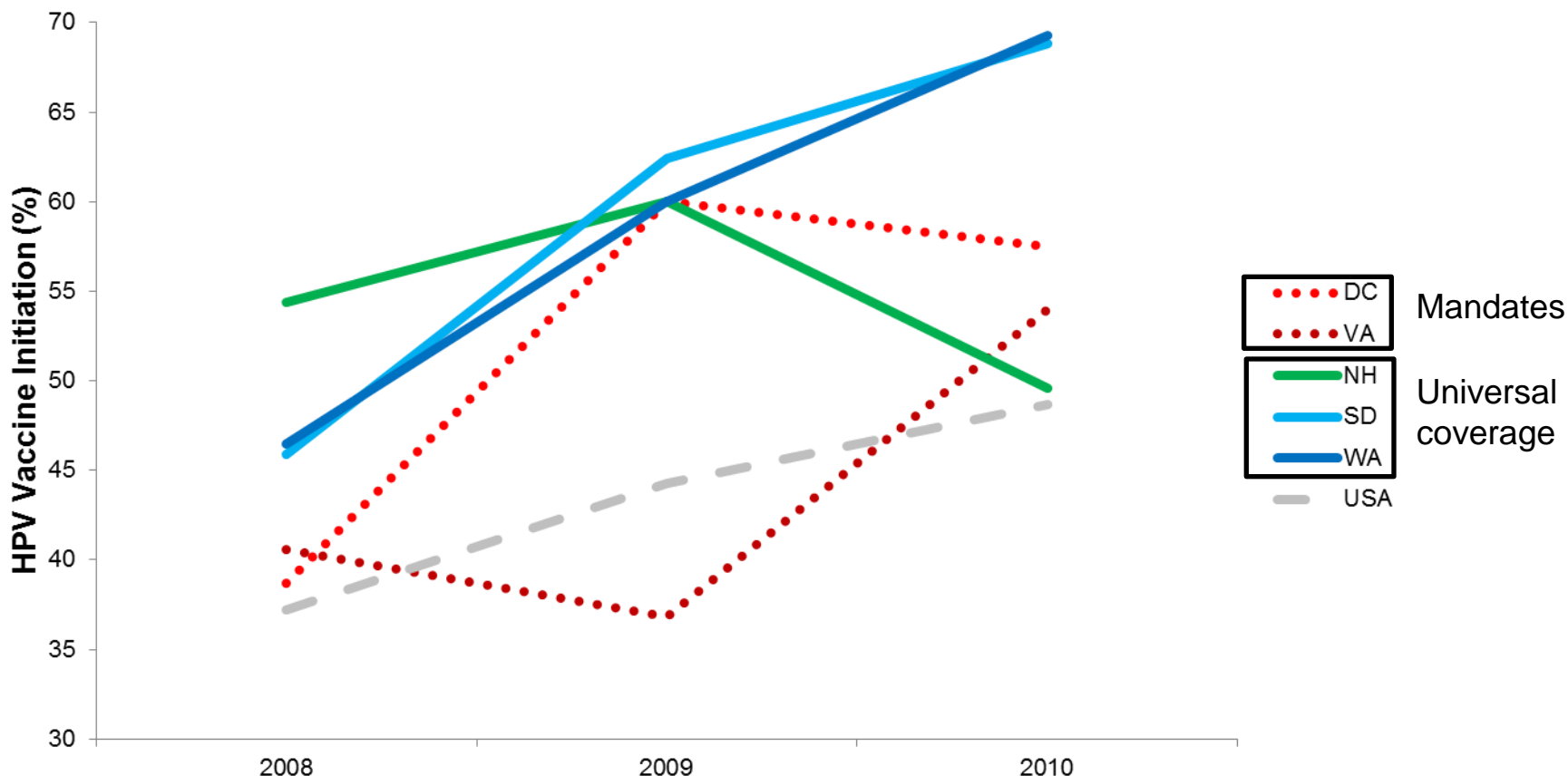


Sexual Disinhibition

- No studies show SD.
- Few parents believe in it: 10% (3-26%).
8 studies, $n=4,597$
- This belief is a result of vaccination,
not a predictor of it
(Brewer et al. 2011; Schuler et al. 2011)



School Entry Requirements



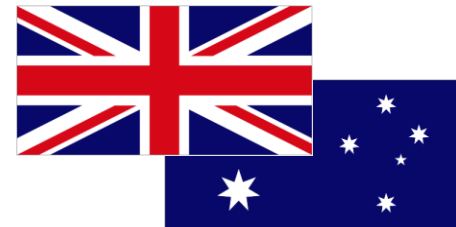
Estimated HPV vaccine coverage among female adolescents ages 13 through 17

Data Source: National Immunization Survey—Teen

Brewer & Gilkey, 2012. *JAMA*

HPV Vaccine Initiation

In Australia and UK: ~90%



In the US: ~54%



150
REASONS
FOR
DISOBEYING
THE
VACCINATION LAW,
BY
PERSONS PROSECUTED
UNDER IT.

EDITED BY MRS. HUME-ROTHERY.

CHESHAM :
GEORGE E. FROD, PRINTER.
1878.

Hume, M. C. (1878).
150 reasons for disobeying the
vaccination law by persons
prosecuted under it.

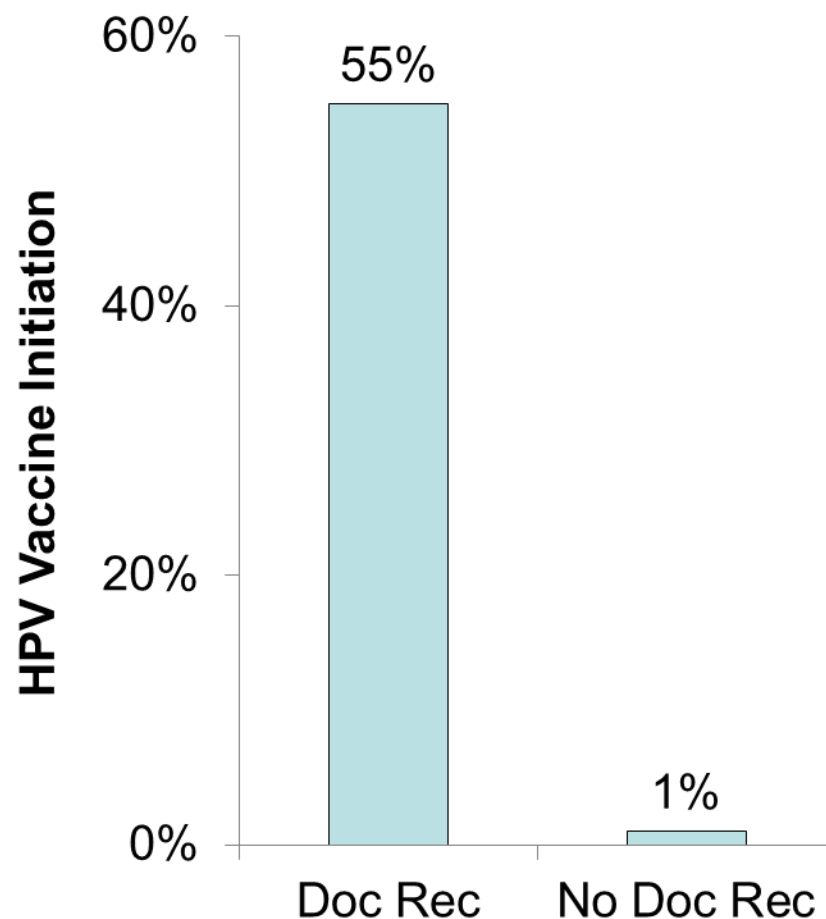
Real Problems



Provider Recommendation

Parents with a healthcare provider's recommendation much more likely to vaccinate

- OR = 172 (36–172)
- Only 10% of parents had received a provider's recommendation



Reiter et al., 2013, *AJPH*

Provider Recommendation

Strong predictor

- **OR= 18** (range 2.2-172)
7 studies; $n=18,955$, range
32-16,139

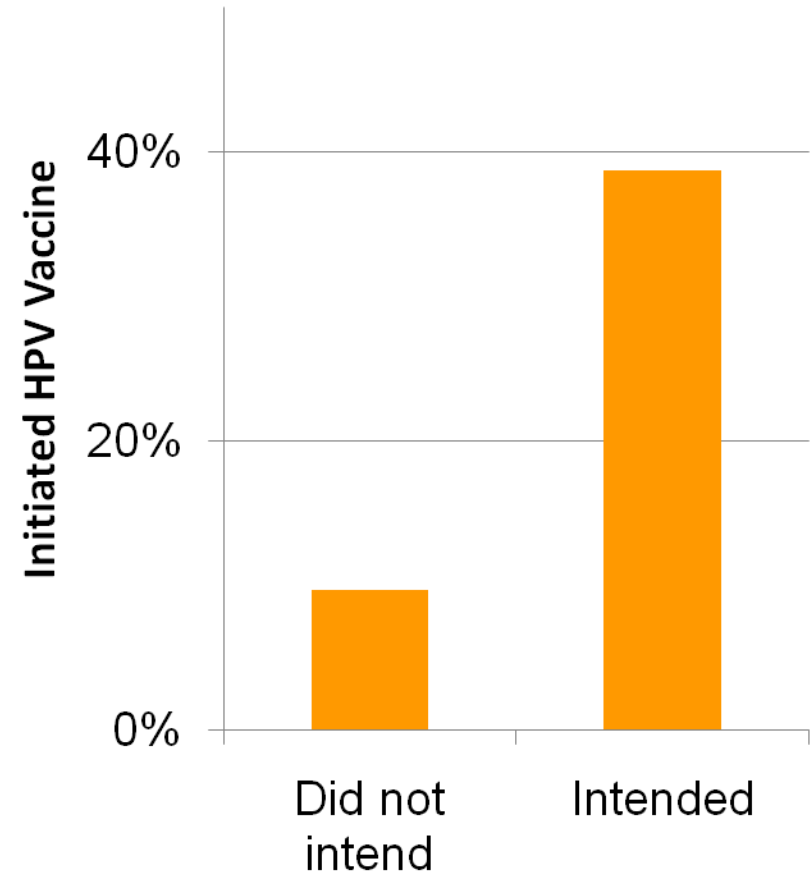
Missed opportunities

- 22% of parents had received provider recommendation.
- A year later, 2 in 3 without provider's recommendations for HPV vaccine
(Brewer et al., 2011)



Intentions

- 34% of parents intended to vaccinate their daughters at baseline.
- Parents who intended to vaccinate did.
 $aRR = 3.93 (2.13-7.25)$



Anticipated regret

“I would regret it if I didn’t get the flu shot and then got the flu.”

Among risk beliefs, strongest predictor of uptake of flu vaccine and HPV vaccine.

OR = 2.0 (range 1.1-5.1; 3 studies, $n=3,151$)

83% of parents of adolescent girls heard of HPV vaccine from a drug company ad

Other Predictors of Uptake

HPV vaccine beliefs

- Perceived effectiveness
- Perceived barriers (cost, availability, safety)
- Feel they need more information
- Vaccine is “too new”

Child, parent and family characteristics

- Age, race, income, rurality
- Insurance
- **Previous vaccination**
OR = 2.14 (range 1.38-7.98; 9 studies, $n=307,668$)

Environment

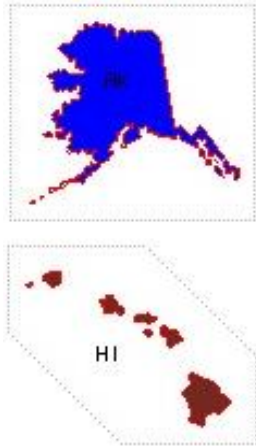
- Social norms
- Self-efficacy

Gap

- Few studies
- Need to study high risk populations
- Need longitudinal studies

Some Solutions

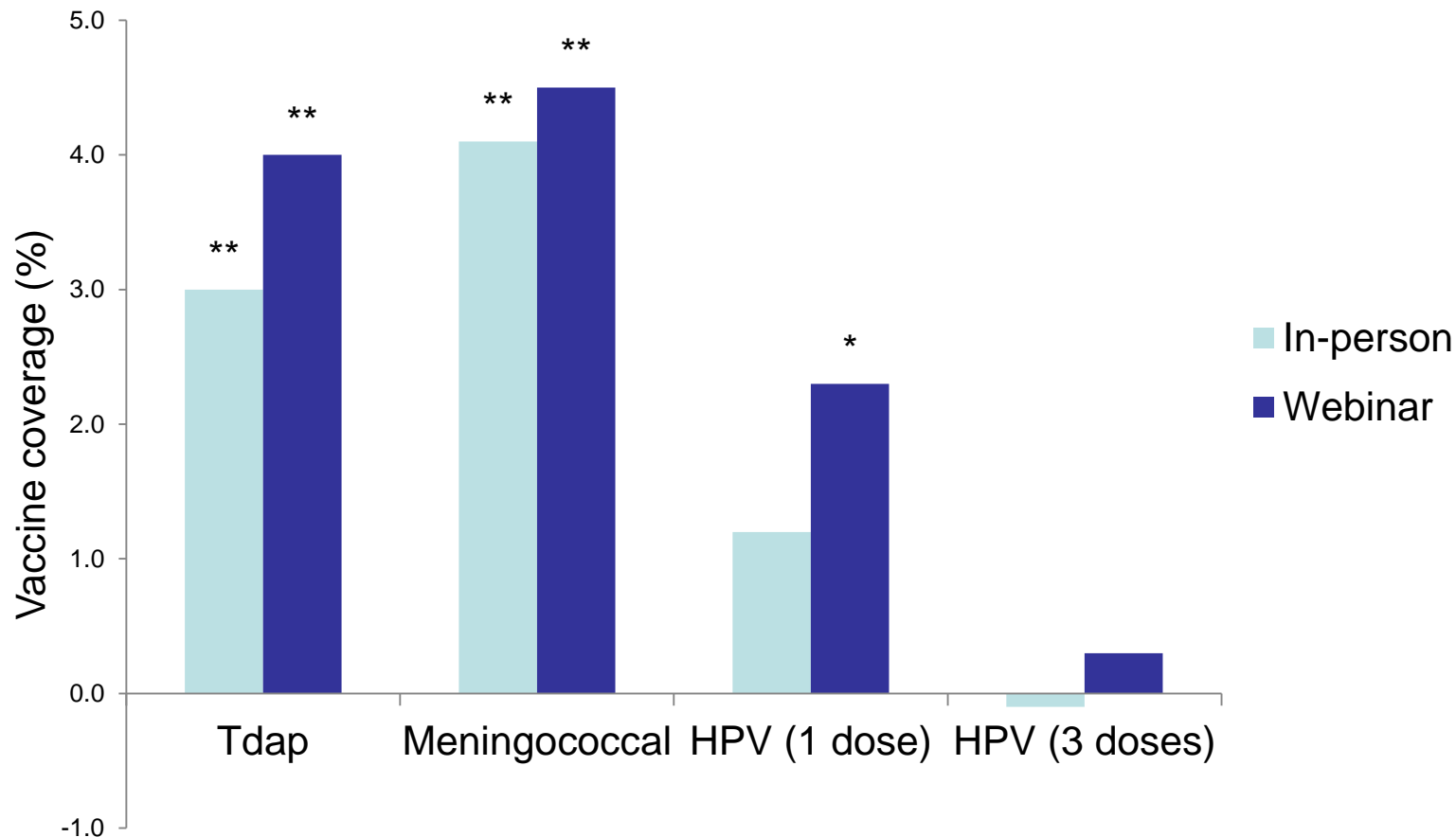




- Tier 1** Can give HPV vaccine, unrestricted
- Tier 2** Requires supervision agreement with a prescriber. Any patient.
- Tier 3** Requires a supervision agreement with a prescriber. Only patients of prescriber.
- Tier 4** Only to patients who present a prescription from a prescriber
- Tier 5** Cannot administer vaccine

AFIX intervention improvement over control

Adolescents, Ages 11-12 ($n=32,676$)



* $p < .05$, ** $p < .001$

Physician Recommendation

Directive – 26% resisted vax

Participatory – 83% resisted vax



Collaborators

CDC

Patricia Dittus

Sami Gottlieb

Susan Hariri

Nicole Liddon

Lauri Markowitz

Beth Unger

UNC

Joan Cates

Tamera Coyne-Beasley

Melissa Gilkey

Will Pendergraft

Allen Rinas

Jennifer Smith

Other Institutions

Yumi DiAngi, U Penn

Amanda Dayton & Amy
Grimshaw, NC Imm.
Branch

Annie-Laurie McRee, Ohio
State

Paul Reiter, Ohio State

Alice Richman, E Carolina U

Bethany Weber, Iowa State

Talya Salz, Sloan-Kettering

Nina Sperber, Duke
University

Brenda Stubbs & Diane
Whitesell, Guilford Cty
Dept of Public Health

Students

Yuli Chang

Karah Fazekas

Paul Gilbert

Jessica Hughes

Katie Keating

Christina Ludema

Melissa Mayer

Cicely Mitchell

Jennifer Moss

Terence Ng

Jessica Pepper

Alison Reed

Christy Schuler

Parth Shah

Karen Ziarnowski

Rachel Zucker

Noel Brewer

ntb@unc.edu

Free downloads
of survey instruments
and papers

www.unc.edu/~ntbrewer/hpv.htm

Thank you!



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