The Critical Need for Partnerships to Advance Screening and Vaccination to Reduce HPV Cancers

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OBJECTIVES

- Partnerships between medical providers and
  - patients
  - advocates
- Common questions
  - Safety safety safety
  - Why this age
- Handling misinformation and social media
- You matter

WHY WE ARE HERE: PREVENTING THE INTERGENERATIONAL IMPACT

nature medicine

Article

https://doi.org/10.1038/s41591-022-02109-2

Global and regional estimates of orphans attributed to maternal cancer mortality in 2020

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Florence Guida[1,11], Rachel Kidman[2], Jacques Ferlay[1], Joachim Schüz[1], Isabelle Soerjomataram[1], Benda Kithaka[3], Ophira Ginsburg[4], Raymond B. Mailhot Vega[5], Moses Galukande[6], Groesbeck Parham[7], Salvatore Vaccarella[1], Karen Canfell[8], Andre M. Ilbawi[9], Benjamin O. Anderson[9], Freddie Bray[1], Isabel dos-Santos-Silva[10] & Valerie McCormack[1,12]

- Used cancer mortality data, and fertility data to estimate number of orphans from cancer
- In 2020: 1,047,000 orphans from maternal cancer
  - 20% (n=210,000) from cervical cancer
  - 25% (n=258,000) from breast cancer
- 27 yo – now parenting 6 --colleague's story

Without the mother: [1-3]

- Increased anxiety & depression
- Marry younger
- Less likely to complete education
- Get less health care
- Generational poverty

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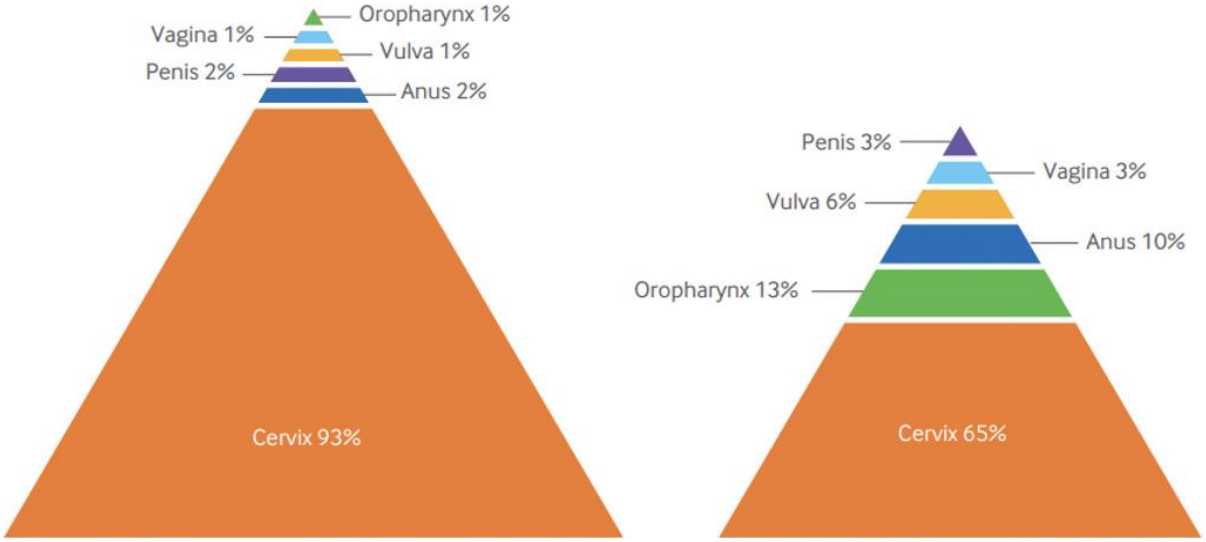
1. Ellis J, Dowrick C, Lloyd-Williams M. *J R Soc Med*. 2013 Feb; 106(2): 57-67. doi: 10.1177/0141076812472623
2. Sundstrom K, Bencina G, Andersson M, Salomonsson S, Fang F, Wang J. *Annals of Oncology*. Vol 34, S2, S539, October 2023. DOI: https://doi.org/10.1016/j.annonc.2023.09.1988
3. Singhrao R, Huchko M, Yamey G. *PLoS Med*, 2013 Aug: 10(8): e1001499. doi: 10.1371/journal.pmed.1001499

CERVICAL CANCER: BIGGEST SHARE OF HPV CANCERS

Figure 15.2 Cervical Cancer Versus Other HPV-Cancers: A Global Comparison



Lower-Income Countries
(490,000 total HPV-related cancers)

Higher-Income Countries
(120,000 total HPV-related cancers)

Females bear the brunt: *Cervical cancer's vastly higher global burden—compared with all other HPV-cancers, including those most common among men—has galvanized support for the longstanding practice of giving girls first rights to the HPV vaccine.*

Rahangdale, L., Mungo, C., O'Connor, S., Chibwesha, C.J., Brewer, N.T. "Human papillomavirus vaccination and cervical cancer risk." BMJ (2022); *379:e070115.* http://dx.doi.org/10.1136/bmj-2022-070115

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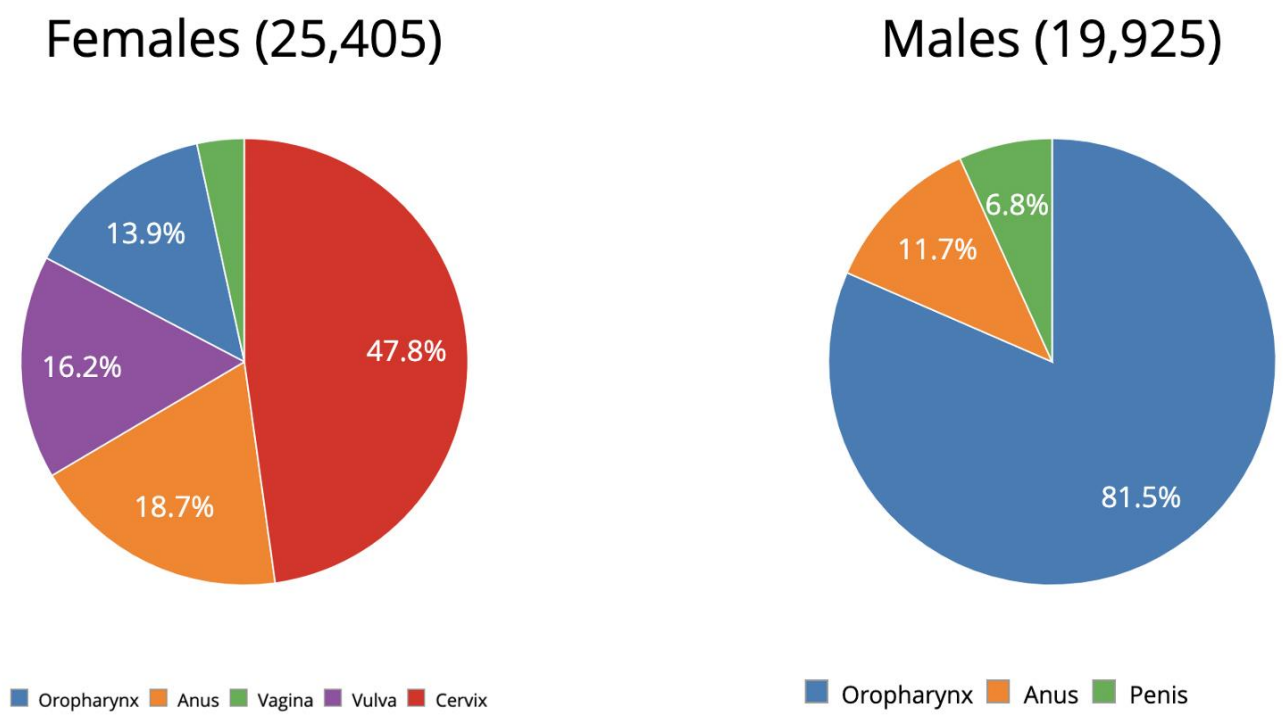
HPV CAUSES 6 CANCERS

Figure 5.2 Number of HPV-Related Cancers in the United States in a Year



***HPV's link to cancer**: Based on data collected between 2013 and 2017, HPV is associated with a significant number and range of cancers in both men and women. Early use of the HPV vaccine essentially neutralizes the presence of HPV.*

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https://www.cdc.gov/cancer/hpv/cases.html

HPV VACCINE IS A SUPER-POWER!

Public Health Scotland

No cervical cancer cases detected in vaccinated women following HPV immunisation

First published on 22 January 2024

JOURNAL ARTICLE CORRECTED PROOF

Invasive cervical cancer incidence following bivalent human papillomavirus vaccination: a population-based observational study of age at immunization, dose, and deprivation

Get access

Tim J Palmer, FRCPath ✉, Kimberley Kavanagh, PhD, Kate Cuschieri, PhD, Ross Cameron, MPH, Catriona Graham, MSc, Allan Wilson, FIBMS, Kirsty Roy, PhD

JNCI: Journal of the National Cancer Institute, djad263,
https://doi.org/10.1093/jnci/djad263
Published: 22 January 2024 **Article history** ▾

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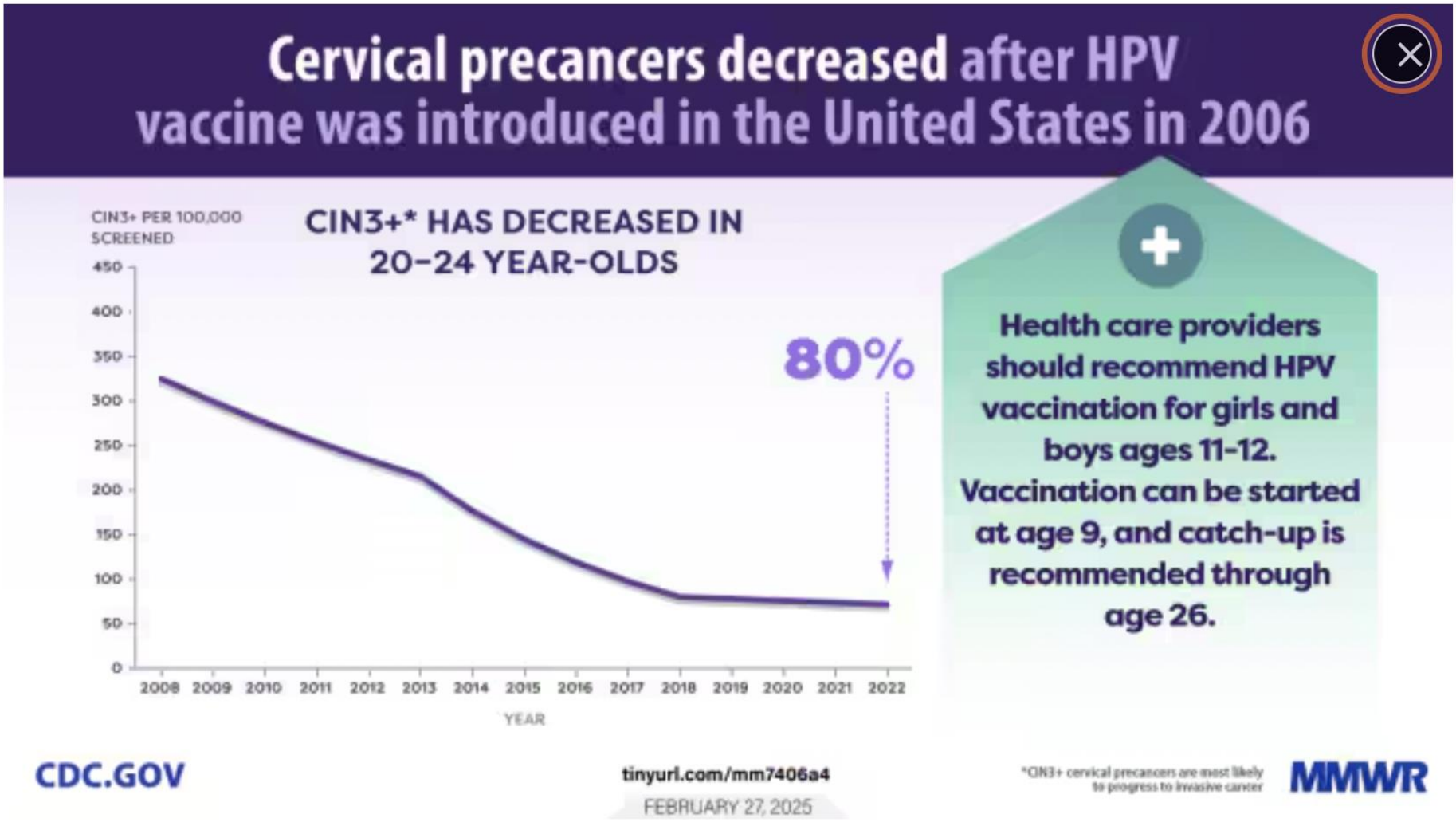
US: HPV VACCINE IMPACT



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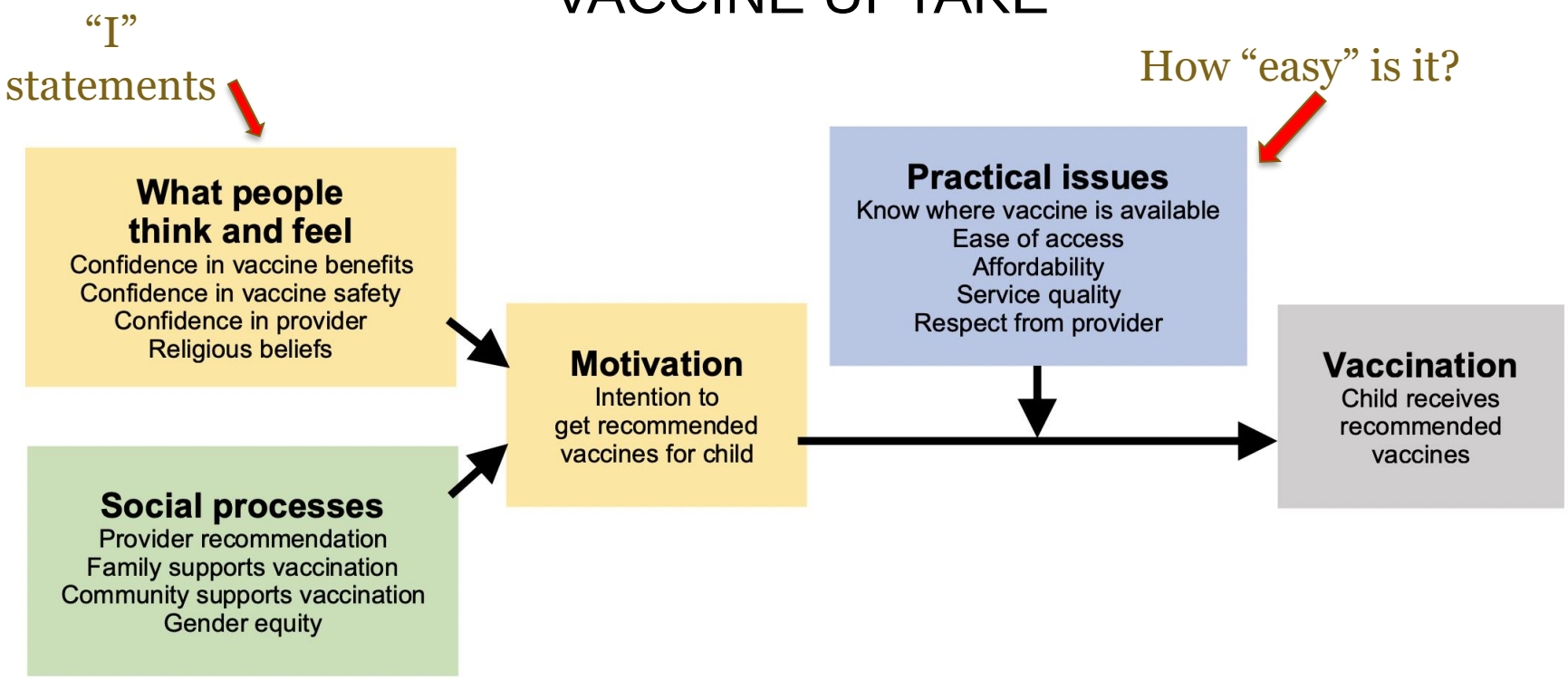
PARTNERING WITH PATIENTS AS THEY MAKE DECISIONS

WORKING TO INCREASE SCREENING AND VACCINE UPTAKE



Brewer et al, Psychology of Vaccination 2017: 18(3): 149-207

Brewer, ACADEMIC PEDIATRICS 2021;21:S9−S16

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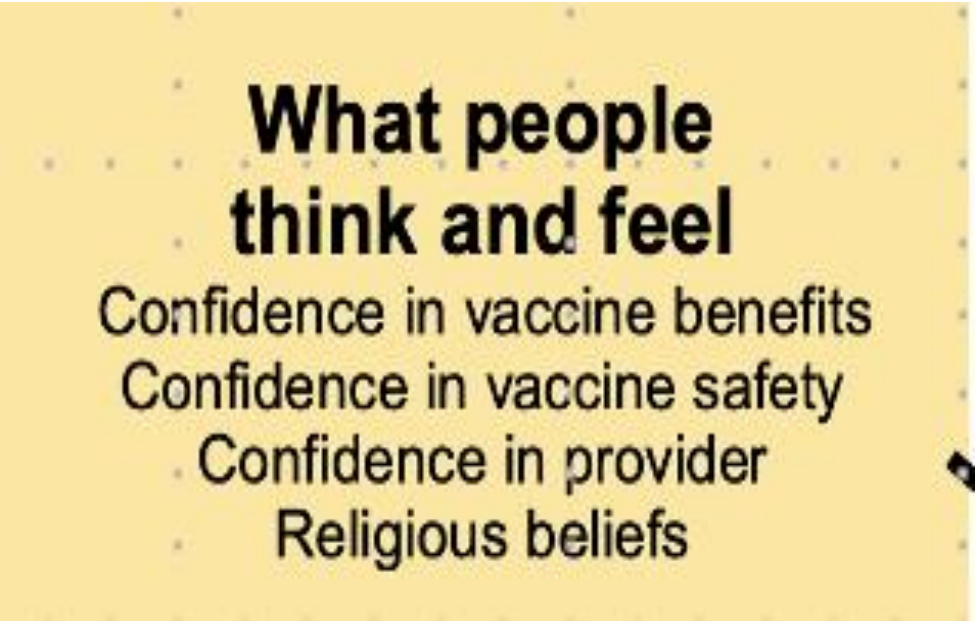
VACCINE AND SCREENING UPTAKE: THOUGHTS AND FEELINGS



- Is it safe?
- Will it benefit me?
- Does my provider know the information?

- Thoughts and feelings are associated with vaccine uptake in observational studies (eg perceived vaccine or screening benefits, and safety, confidence in provider)

Brewer, 2016; Health Psychology, https://doi.org/10.1037/hea0000294

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VACCINE AND SCREENING UPTAKE: SOCIAL PROCESSES

Single most important predictor of vaccine uptake: **strong provider recommendation**.

Social processes
Provider recommendation
Family supports vaccination
Community supports vaccination
Gender equity

Offer recommendation as an announcement (training on https://www.hpviq.org/) – training led to 5% increase in HPV vaccination in US and UK offices

"Now that Sophia is 12, she is due for 3 vaccines. Today, she'll get vaccines against meningitis, HPV cancers, and whooping cough"

Peer and community thoughts are influential—social media

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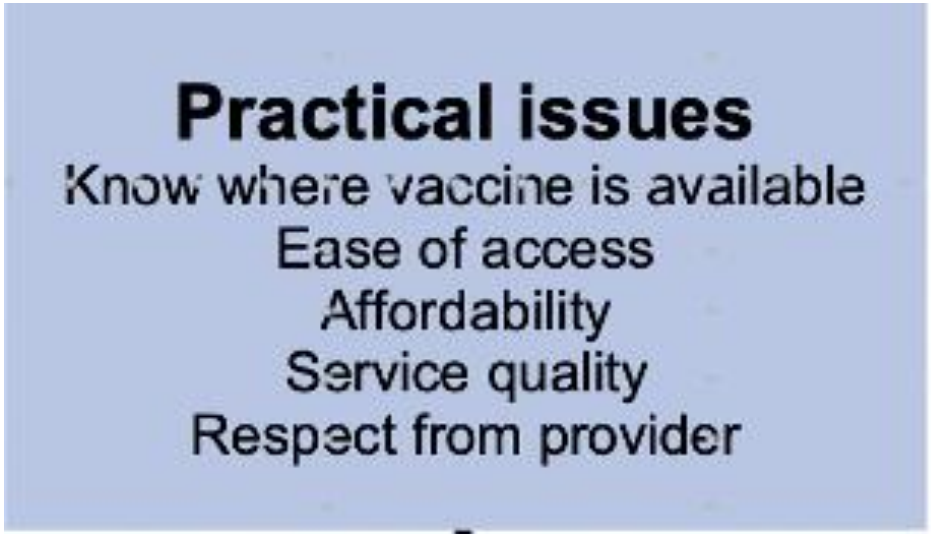
Pediatric Annals, 2020;49(12):e523–e531

VACCINE AND SCREENING UPTAKE: PRACTICAL ISSUES



Once a decision is made to vaccinate or screen- how easy is it?
Provider can really help here

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PARTNERSHIP WITH SURVIVOR ADVOCATES

Imagine this-- Scenario one:

I tell a patient

- HPV vaccination is really effective at preventing cancer

- in fact, it can prevent over 90% of cervical cancer

- and really, treatment for cervical cancer is pretty awful.

- I really encourage you to get this vaccine

PARTNERSHIP WITH SURVIVOR ADVOCATES

Now this- Scenario two:

Morgan was 14 yo when she was offered the HPV vaccine.

- -She really hated shots, and just did not understand that much about HPV, her doctor did not really explain it well
- -So she did not want it. “I won’t get cancer. That won’t happen to me” she remembers saying to herself
- - Her mother encouraged her to get the vaccine, but ultimately left the decision to Morgan.
- - Morgan turned it down

PARTNERSHIP WITH SURVIVOR ADVOCATES

10 years later…. Morgan says…

- -It happened! It happened to me!!!
- -I was diagnosed with cervical cancer from HPV 16.
- -I had radiation and chemotherapy
- -I lost my fertility and I have ongoing bowel and bladder function from the radiation
- -I now tell EVERYONE I can about the HPV vaccine and cervical cancer”

PARTNERSHIP WITH SURVIVOR ADVOCATES

Can you see how the approach with the story can be impactful in a way statistics may not be?

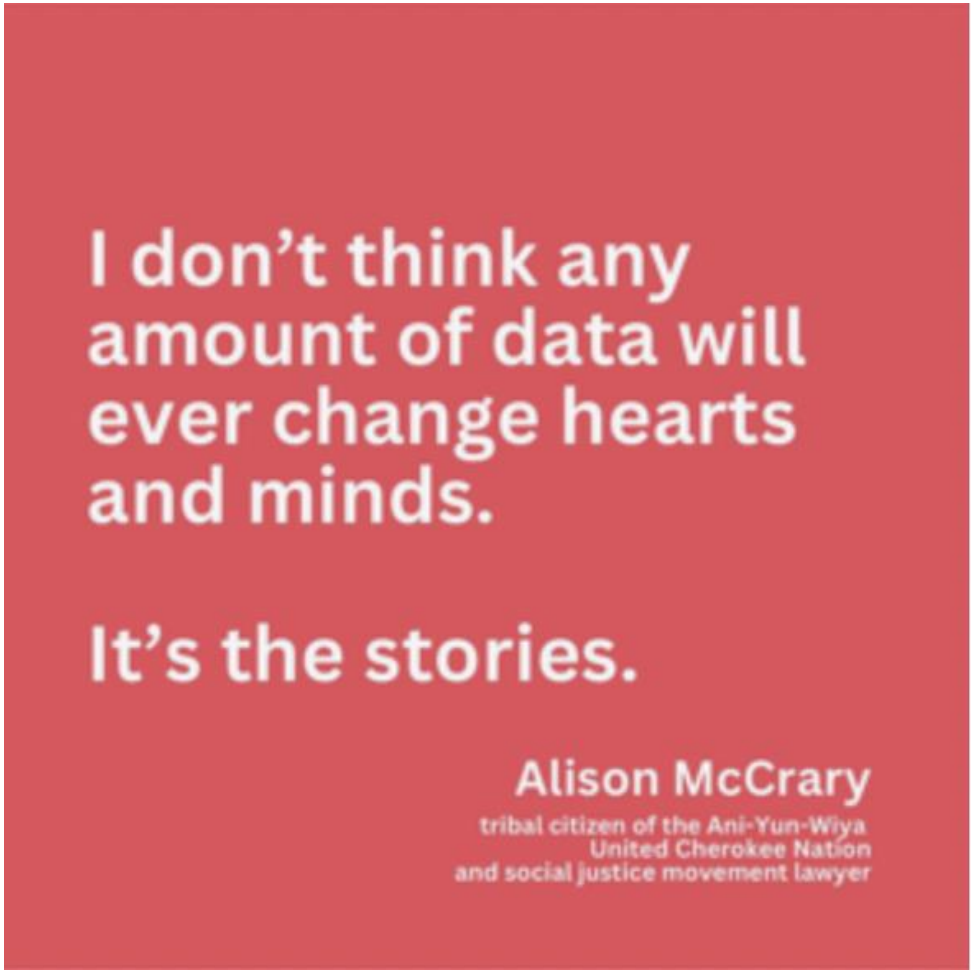
ADVOCACY: THE POWER OF STORY

Start with a story.

It's the standard advice for any doctor who sets out to write, speak or advocate on behalf of her patients. Stories change minds. They change how people think about issues that can otherwise feel impersonal.

Stories matter.

ADVOCACY: STORIES CAN CHANGE US



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STORY VS STATISTICS: WHAT STICKS

Recent study in the Quarterly Journal of Economics

STORIES, STATISTICS, AND MEMORY

THOMAS GRAEBER
CHRISTOPHER ROTH
FLORIAN ZIMMERMANN

"In controlled experiments, we document a pronounced story-statistic gap in memory: the average impact of statistics on beliefs fades by 73% over the course of a day, but the impact of a story fades by only 32%."

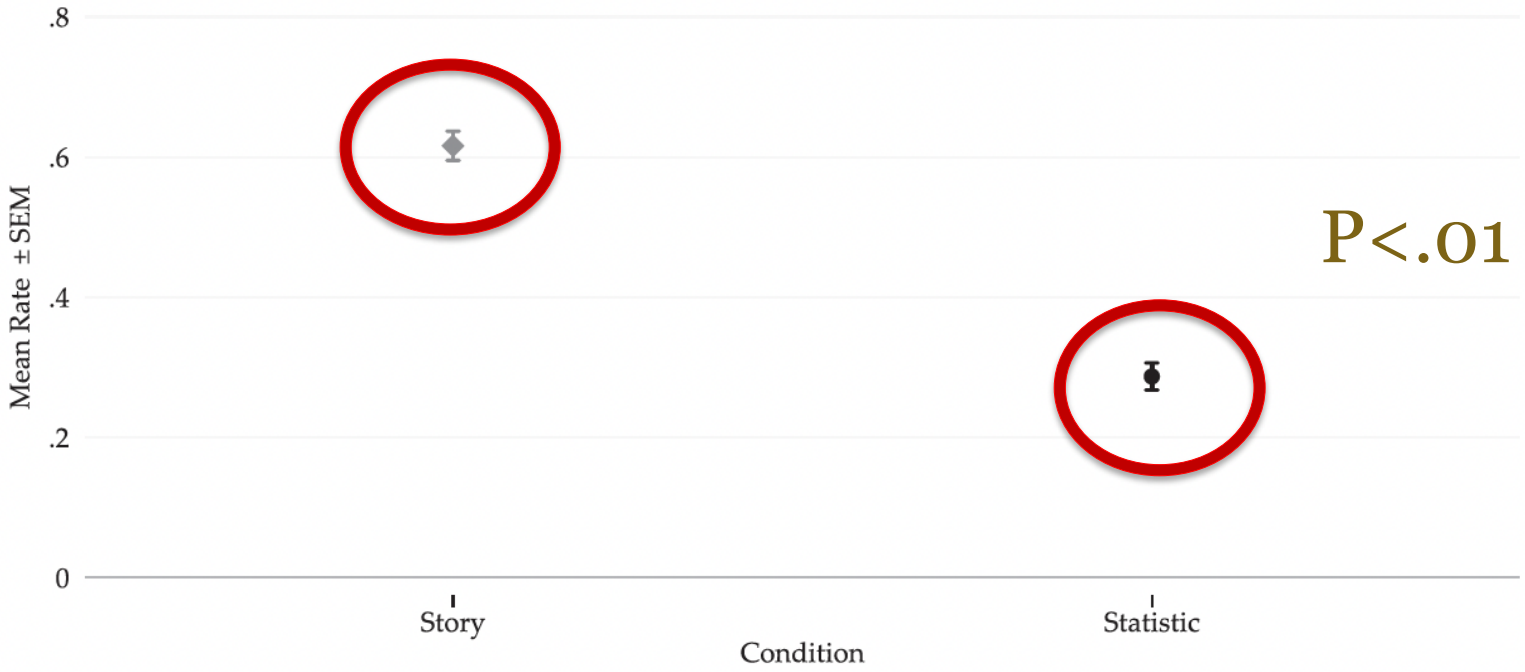
N=933

Examine fraction of respondents with correct recall of both type and direction of information 24 hours after presentation

The Quarterly Journal of Economics (2024), 1–45. https://doi.org/10.1093/qje/qjae020.
Advance Access publication on June 11, 2024.

STORIES STICK

CORRECT RECALL OF INFORMATION TYPE



P<.01

N=933;
Recall 24 hours later

The Quarterly Journal of Economics (2024), 1–45. https://doi.org/10.1093/qje/qjae020.
Advance Access publication on June 11, 2024.

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FOR ME PERSONALLY

- I LOVE data. I am a data nerd
- BUT as I talk to people about vaccines, especially in Covid- I realized it was the stories they had heard that were more important
- So, I am now moving more to leading with a story, and then adding in the data
- In fact, that is one reason I wrote a book– cancer needed a personal face on it, not just data
- ALL of us have a story.

COMMONLY ASKED QUESTIONS

1. Is the vaccine safe? YES!!! 170,000,000 doses, out since 2006, multiple global safety agencies (WHO, CDC, Upsula Sweden, Japan) and no safety signals. No live virus.
2. On the other hand—the consequences:
    1. precancer evaluation and treatment
    2. cancer treatment and long term QOL
    3. Screening – do it, but vaccine is “done” and screening needs treatment and follow up
    4. No screening for oral-pharyngeal cancers
3. Empathy in vaccine discussions

COMMONLY ASKED VACCINE QUESTIONS

1. **Is the vaccine safe?** YES!!! *What type of information would they like?*

- 280,000,000 doses worldwide
- out since 2006
- multiple global safety agencies (WHO, CDC, Upsula Sweden, Japan) and no safety signals or patterns of long term side effects
- Over 1800 articles on safety
- No live virus

COMMONLY ASKED VACCINE QUESTIONS

2. **Does the vaccine cause infertility?** NO!!

- Almost every vaccine ever used has been accused of causing infertility from time of polio vaccine forward
- Did cause some people to worry since origially given to just girls
- What does cause infertility is treatment for cervical cancer,
- and treatment for pre-cancer of the cervix (LEEP or LLETZ) can increase risk for preterm labor

COMMONLY ASKED VACCINE QUESTIONS

3**. Why is it recommended to give it to pre-teens? (10 yo)**

- NOT just about sex.
- The vaccine makes better antibodies in individuals under age 14 – so that is a big reason
- And Yes, it is more effective at preventing disease if given prior to exposure to HPV
- Practically speaking: start offering at 10 yo– (in the US it's 9 yo) to try to get more chances to get the vaccine into arms
    - In the US, when give it at 9, parents accept it better, and also higher uptake simply because more years to talk about it and get it accepted

HANDLING MISINFORMATION

Try to start from a place of being curious:

- What have you heard that makes you concerned?
- What information would be helpful to you?
- Are you open to hearing other ideas or having other information sources?

Studies show empathy is critically important (this can be really difficult)

TRUST IS CRITICAL FOR COUNTERING MISINFORMATION

- What is information/ or WHO would the person trust making the decision?
- This is also where advocates/stories can be helpful– especially if it is not just about data/information.
- Public health figures/knowing where to go for information WHEN (not if) you hear negative comments

SOCIAL MEDIA

Study of tweets and HPV vaccine in the US[1]:

- positive comments about HPV vaccine were twice as common as negative tweets
- but negative tweets got retweeted/shared twice a much
- in places where conspiracy theories shared more commonly, HPV vaccine rates lower
- How many of us use social media? Simple messages such as “HPV vaccine received – feel great and now I am protected”

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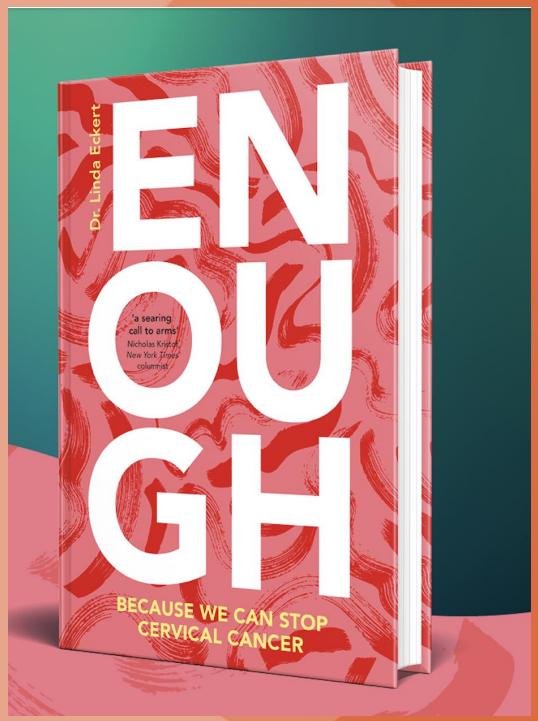
[1]Dunn et al, j.vaccine.2017; (35) 3033-40.

YOU AS PROVIDERS ARE A SUPER-POWER

- You have credibility
- Your recommendation is critically important
- You have a relationship (example: prenatal care providers – bonding – can discuss how important it is to get screened for cervical cancer, or how important HPV vaccination is)
- You can really make a difference

DYNAMIC DUO OF CHANGE

data+
science



advocacy
+stories

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THANK YOU!!!

QUESTIONS???

- Other negative comments/questions you have heard?
- Any tips/successes you would like to share
- What partnerships have you found helpful?
- What partnerships might you like to have?

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Let's Go!!!! We have ENOUGH

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