COVID-19 Conversations

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Increasing Vaccination Uptake

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HPV.iQ Immunization Quality Improvement Tools
Increasing Vaccination: Putting Psychological Science Into Action

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Summary

Vaccination is one of the great achievements of the 20th century, yet persistent public health problems include vaccine hesitancy and refusal. Psychological science has the potential to inform the development of evidence-based policies and interventions to address these challenges. In this article, we describe a set of strategies based on psychological science that can be used to improve vaccination rates.
Increasing Vaccination Model

- What people think and feel
- Social processes
- Direct behavior change

Brewer, et al., 2017, *PSPI*
### Evidence from randomized trials

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Brewer, et al., 2017, PSPI (Table 4, p. 188)
### Evidence from randomized trials

#### What people think and feel
- Messages that increase disease risk appraisals
- Education campaigns that increase vax confidence
- Decision aids
- Motivational interviewing

#### Likely impact
- None or minimal
- Modest
- Substantial

#### Social processes
- Descriptive norm messages
- Social network interventions that build on contagion
- Messages that change altruism or freeriding beliefs

#### Direct behavior change
- Presumptive healthcare provider recommendations
- Reminders and recalls
- Implementation intention interventions
- Mere measurement interventions
- Onsite vaccination
- Default appointments
- Incentives
- Vaccination requirements

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Brewer, et al., 2017, *PSPI* (Table 4, p. 188)
Proposition 3. Direct behavior change influences vaccination

- Clear evidence from interventions

Intention
(or hesitancy)

Vaccination
(or refusal, delay)

Build on favorable intentions
- Keep vaccination on people’s minds with reminders, prompts, primes
- Reduce barriers with logistics or behavioral defaults

Shape behavior
- Provide incentives, implement sanctions
- Require vaccination

Brewer, Chapman, et al., 2017, PSPI
Example: Default appointments

Vaccination Rate Based on Clinic Record

- Vaccination at Flu Clinic
  - Opt-out: 30%
  - Opt-in: 25%
  - No Letter: 20%

- Vaccination at Doctor's Office Visit
  - Opt-out: 15%
  - Opt-in: 10%
  - No Letter: 5%

Chapman, Li, Leventhal, & Leventhal (2016) Behavioral Science & Policy. NIH 1R01AG037943-01
Increasing Vaccination Model

What people think and feel

Social processes

Direct behavior change

Vaccination

Brewer, et al., 2017, PSPI
Will vaccination lead people to take risks?

Probably not

Only matters when a vaccine is not very effective

Lyme vaccination and other preventive behaviors
Brewer et al., 2007, *JBM*

Mask wearing and hand hygiene
Mantzari, Rubin, & Marteau, 2020, *BMJ*