

# **Socio-behavioral perspectives and MPT product profiles: the HPV vaccine experience**

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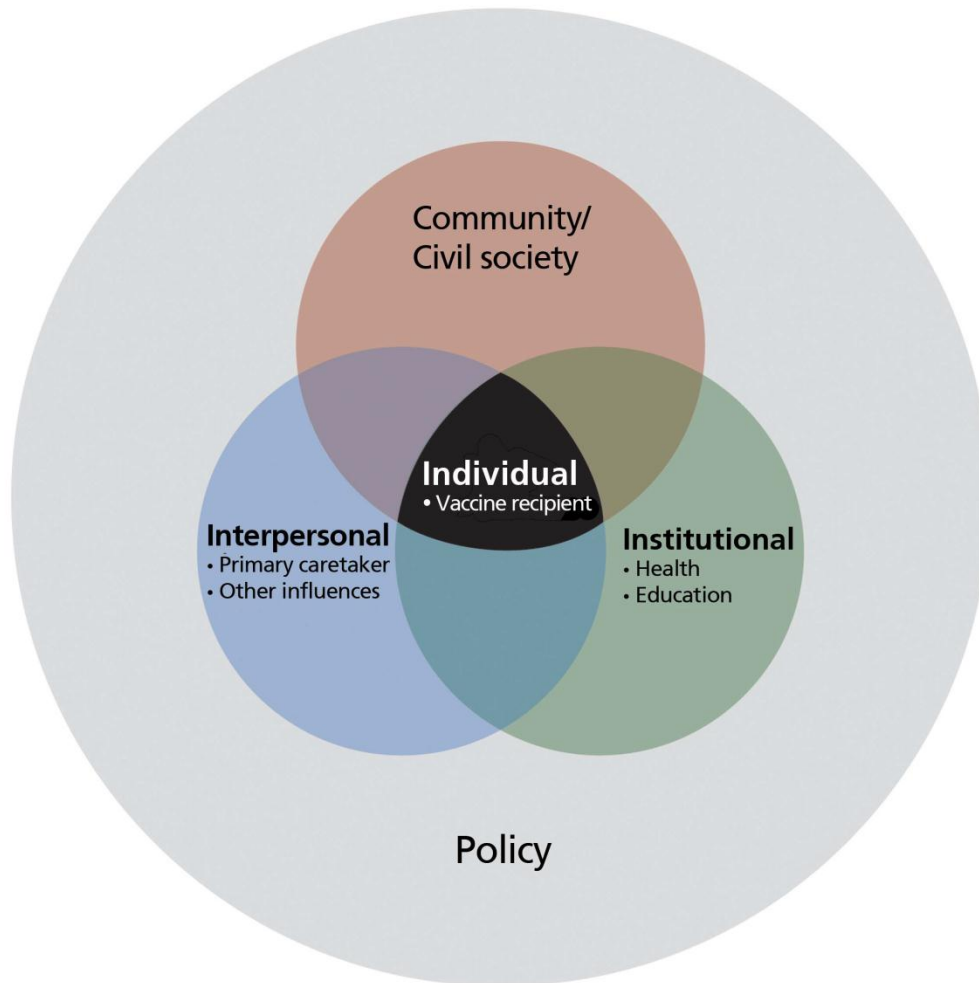


# Relevant background on HPV vaccines

- Protect against 2 oncogenic HPV types (16/18), which account for ~70% of cervical cancers, and smaller % of other anogenital cancers
- Gardasil also protects against 2 non-oncogenic HPV types (6/11) that cause ~90% of genital warts –so already multipurpose technology
- Most effective when given to girls before sexual debut
- Injectable; 3 doses within 6 months (maybe 2 doses?)
- Needs cold chain, but more sensitive to freezing than heat
- Excellent safety profile
- Duration of protection documented to 9 yrs, full extent unknown



# Ecological framework and main study questions



- Enablers or barriers most likely to affect a child's receipt or not of the HPV vaccine
- Factors most likely to foster or hinder institutional decisions that result in successful vaccine delivery



# Formative research on HPV vaccines

- Goal: to evaluate acceptability, health systems, policy environment
- Results used to design vaccine delivery strategies, communication programs, policy initiatives
- Participants included girls, parents, community leaders, teachers, head masters, health workers, national policy makers and others

Peru



Uganda

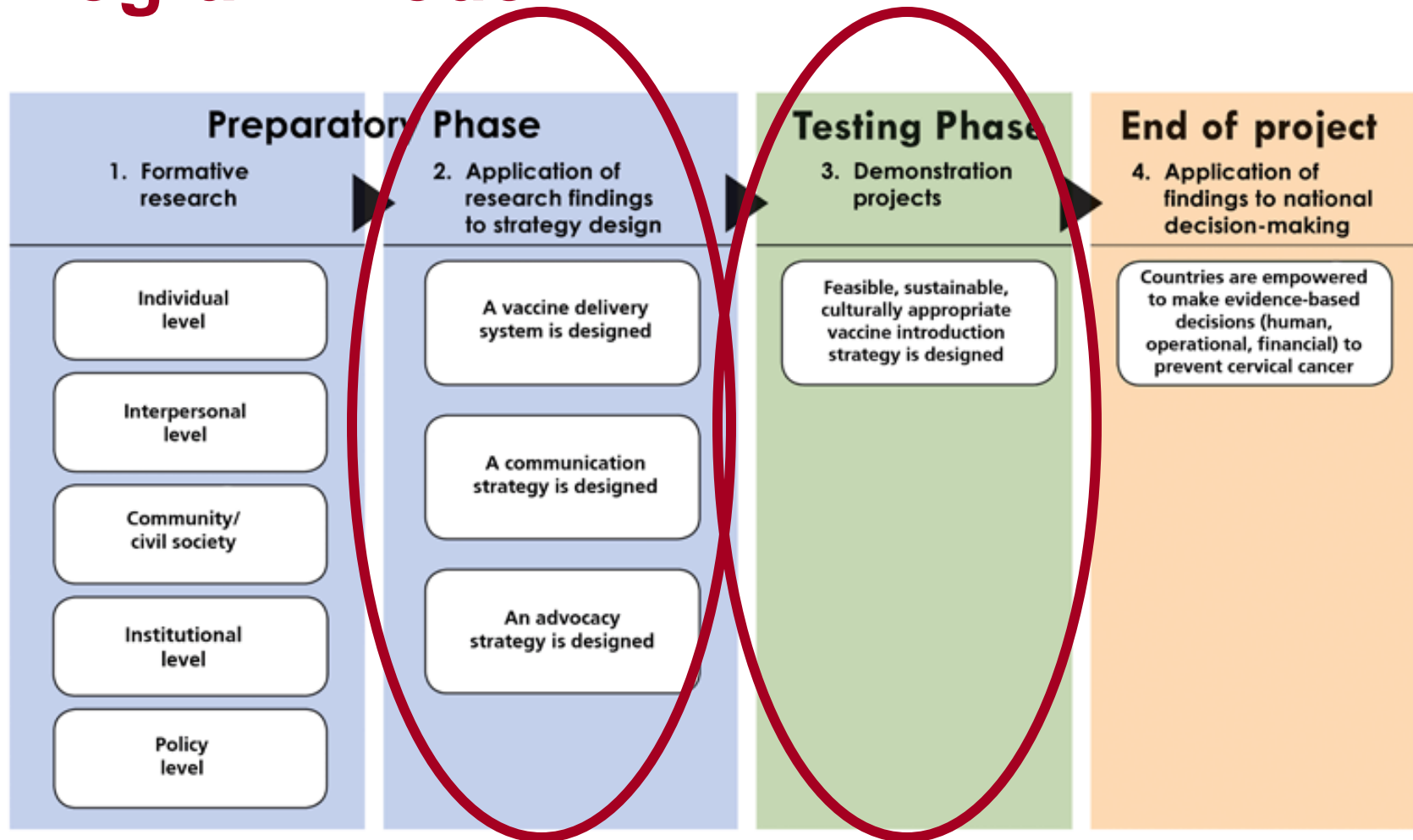
India



Vietnam



# Program model



References: 1) Bingham A et al. *The Open Vaccine Journal* 2009; 2) Bingham A et al. *Arch Pediatr Adolesc Med* 2009; 3) Biellik R et al. *Vaccine* 2009; 4) Tsui J et al. *The Open Vaccine Journal* 2009; 5) Nguyen QN et al. *Sexual Health* 2010; 6) Jacob M et al. *The Open Vaccine Journal* 2010; 7) Katahoire A et al. *Afr J Reprod Health* 2008; and 8) Bartolini R et al. *Salud Publica de Mexico* 2010.



# Examples from HPV vaccine experience

## User issues:

- Fear of injection pain
- Safety concerns, especially fertility effect
- Route of HPV transmission not much of a concern
- Vaccines highly appreciated
- Cancer known and dreaded

## Provider issues:

- New target group to interact with
- Cross-sectoral relationships challenging
- New disease and agent to explain; complex
- Cold chain and injection not much of a concern



# How applicable is HPV vaccine experience?

## Similarities:

- Alternative treatments available
- Needs parental approval because of target age
- Partial protection likely for other components
- Limited doses in set time period, continuous use not needed

## Differences:

- Less stigma for cancer?
- Hard to detect exposure so best to administer before sexual debut
- Focus on female outcomes?
- Other routes of administration may be less complex



# Product parameters & user perspectives

## Big effect:

- Route of administration (familiarity/trust vs fear of pain or infection)
- Safety/side effects (real or suspected)

## Lesser effect:

- Dose number and timing
- Duration of protection
- Efficacy (with reasonable threshold)
- Cost – if cost-sharing expected



# Product parameters & provider perspectives

## Big effect:

- Dose number and timing (workload, complexity)
- Route of administration (who can administer)
- Safety/side effects (real or rumored)

## Lesser effect:

- Duration of protection
- Efficacy (with reasonable threshold)
- Cost
- Storage and transport of single-dose vials



# Socio-behavioral issues important for selecting target combinations

Need to match or need to counterbalance?

- Awareness of disease(s) – frequency, severity
- Social meaning of disease(s) – stigma
- Perception of risk group membership
- Perceived timing of exposure
- Alternative options for prevention and/or treatment
- Efficacy
- Over-estimation of protection leading to underutilization of complementary protections
- Cost



# Key product parameters affecting uptake and adherence

## User issues:

- Route of administration
- Safety concerns, especially fertility effect
- Clarity of target group definition
- Rationale for target group
- Cost IF cost-sharing expected

## Provider issues:

- New target group to interact with
- Timing and number of doses
- Ability to explain vaccine action
- Sensitivity to heat and freezing
- Cost

Compatibility of combos: stigma, perceived risk, disease severity



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