

Impact of Behavioral-Insights Driven Social Media Campaigns on HPV Vaccination in Bangladesh

Sohail Agha, PhD

Behavioral Insights Lab

February 27, 2025

**Presented at the George Washington University, BRIGHT Institute Webinar on
“Digital Media for Health Promotion and Development in LMICS”**

NEPAL

MEGHALAYA
(INDIA)

BANGLADESH



WEST BENGAL
(INDIA)

TRIPURA
(INDIA)

BAY OF BENGAL

MYANMAR

Project Goal

1. Increase HPV vaccination rates among Bangladeshi girls 9-14 in six divisions of Bangladesh

2. Test the additional impact of 3 interventions implemented during the period of the national HPV vaccine rollout in October-November 2024:

- A social media campaign targeting the population around schools in Barisal, Chittagong and Sylhet divisions**
- A social media campaign at the population level in Khulna, Rajshahi, and Rangpur**
- A school promotion interventions conducted in Sylhet division**

NEPAL

MEGHALAYA
(INDIA)

BANGLADESH



WEST BENGAL
(INDIA)

TRIPURA
(INDIA)

BAY OF BENGAL

MYANMAR

from a formative research study in December 2023

HOPE

1

Caregivers who believed that the HPV vaccine offered girls a brighter future, had a **8-percentage points** higher expectation to expectation that their girl will get vaccinated.

INJUNCTIVE NORMS

2

Caregivers who perceived that friends and family supported HPV vaccination had a **6-percentage point** higher expectation that their child would get vaccinated against HPV .

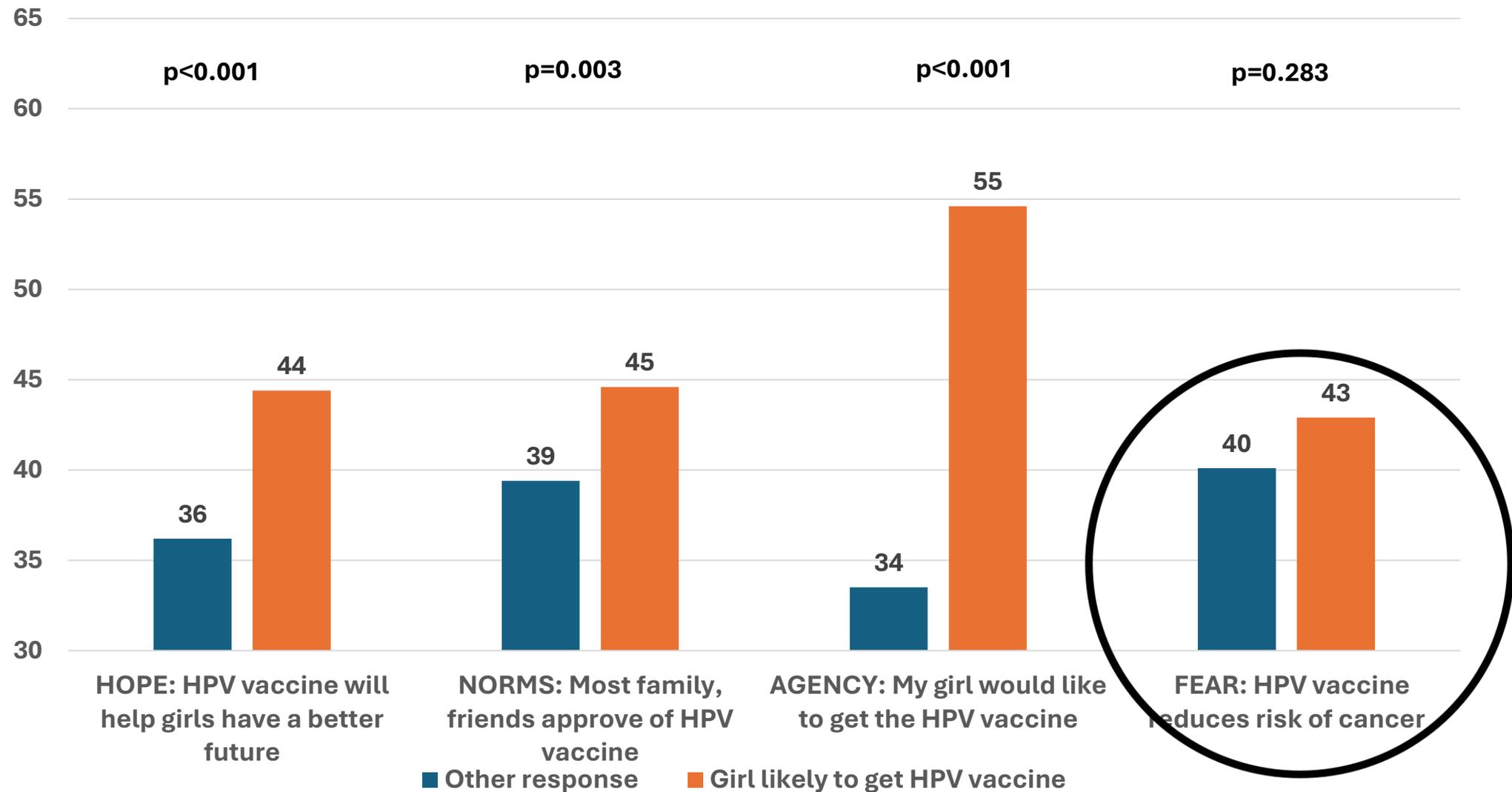
GIRL'S AGENCY

3

When caregivers knew their girls wanted the HPV vaccine, their expectation that she will get vaccinated increased by **21- percentage points**.

Fear of cancer was unrelated to vaccination expectations

Predicted probability of the adolescent girl getting vaccinated in the next 12 months, Bangladesh, December 2023



CAMPAIGN EXECUTION *social media*

Creative developed
on the basis of
behavioral insights.

Ad spend based on
weekly data on ad
performance.



THE HPV VACCINE

**ONE DOSE MEANS
A BRIGHTER FUTURE!**

The HPV vaccine for girls aged 10-14 is coming to your community! Protect your daughter's future with just one dose.

Register at vaxepi.gov.bd

REGISTER FOR FREE

ideSHi
Institute for developing Science & Health Initiatives



Protect your daughter from cervical cancer!

**DOCTORS ACROSS BANGLADESH
SAY, "YES" TO THE HPV VACCINE**

ideSHi
Institute for developing Science & Health Initiatives



THE HPV VACCINE

GIRLS ARE SAYING "YES" TO A CANCER-FREE FUTURE!

Register your daughter for a **FREE** vaccine at vaxepi.gov.bd

ideSHi
Institute for developing Science & Health Initiatives



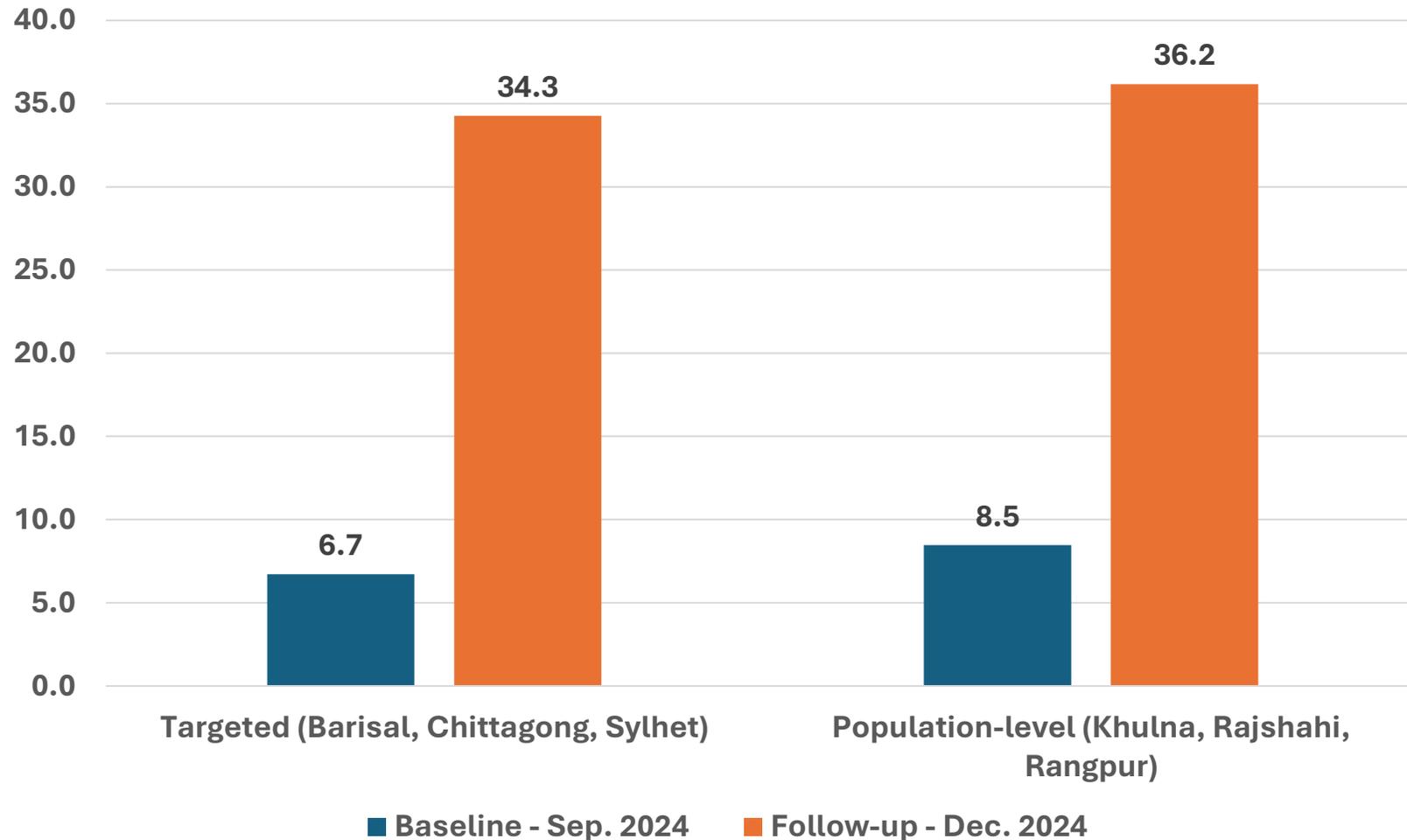
**HER FELINE
Friend APPROVES**

Protect your daughter against cervical cancer

ideSHi
Institute for developing Science & Health Initiatives

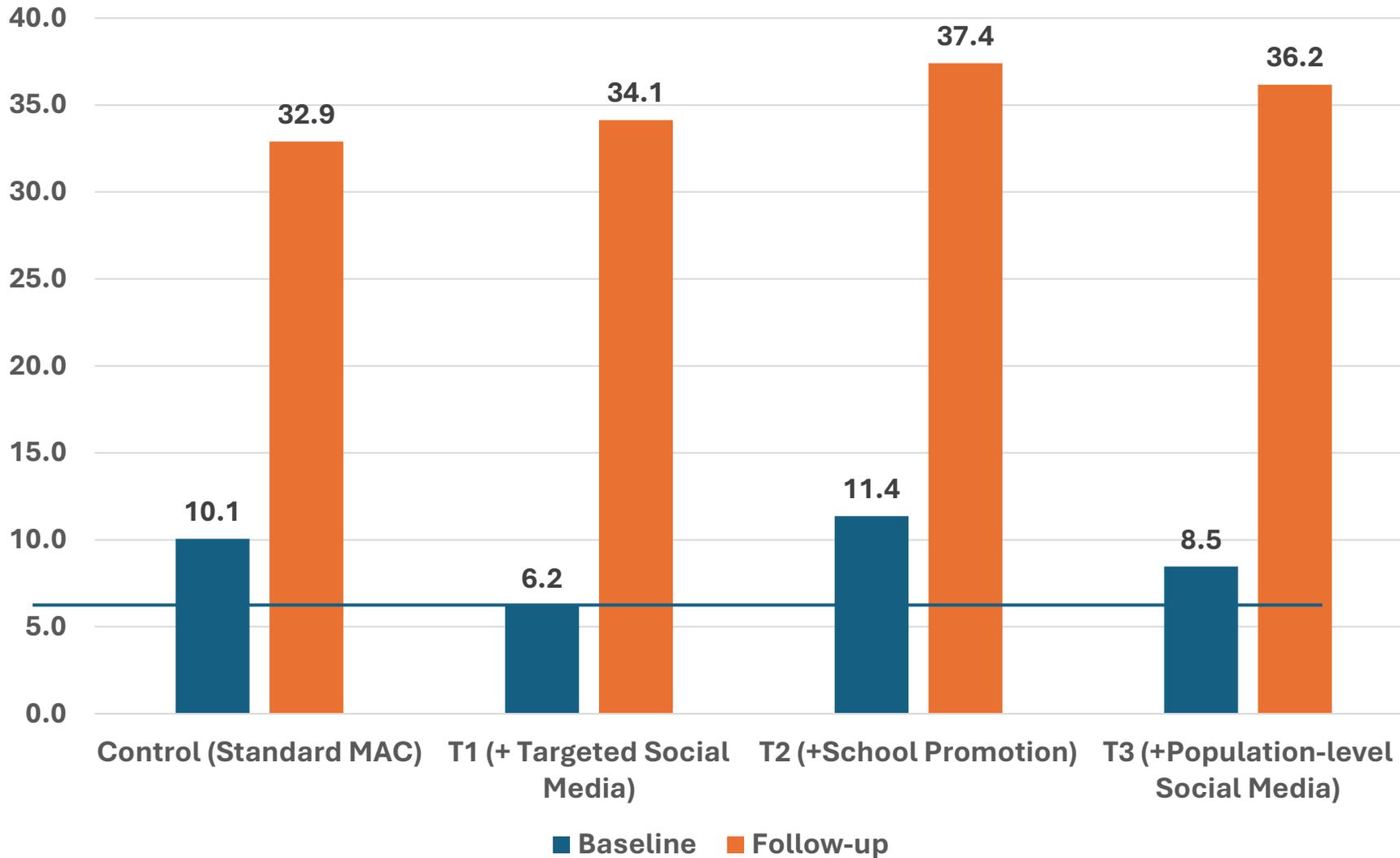
HPV vaccination rates before and after the national campaign - divisions with Targeted and Population-level Social Media Interventions

Changes in the HPV vaccination rate in Bangladesh, September - December 2024



Changes in the HPV vaccination rate in intervention and control areas

Changes in the HPV vaccination rate in Bangladesh,
September - December 2024



We compared differences in caregiver characteristics between intervention and control areas

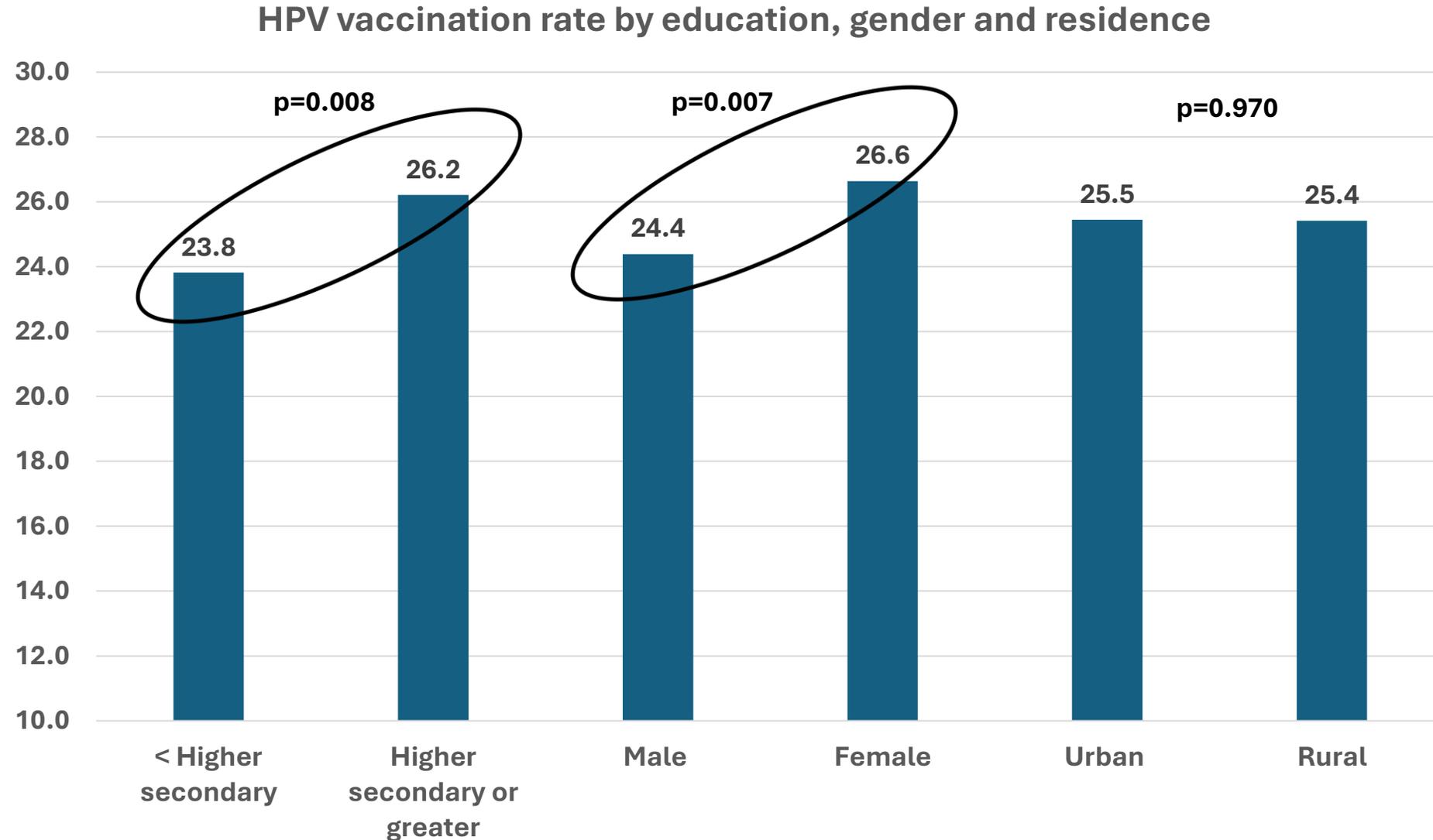
1. Caregiver's age
2. Caregiver's education
3. Caregiver's gender
4. Caregiver's residence in urban or rural areas
5. Adolescent's age

We compared differences in caregiver characteristics between intervention and control areas

1. Caregiver's age
2. Caregiver's education
3. Caregiver's gender
4. Caregiver's residence in urban or rural areas
5. Adolescent's age

We investigated whether education, gender and urban residence were associated with HPV vaccination

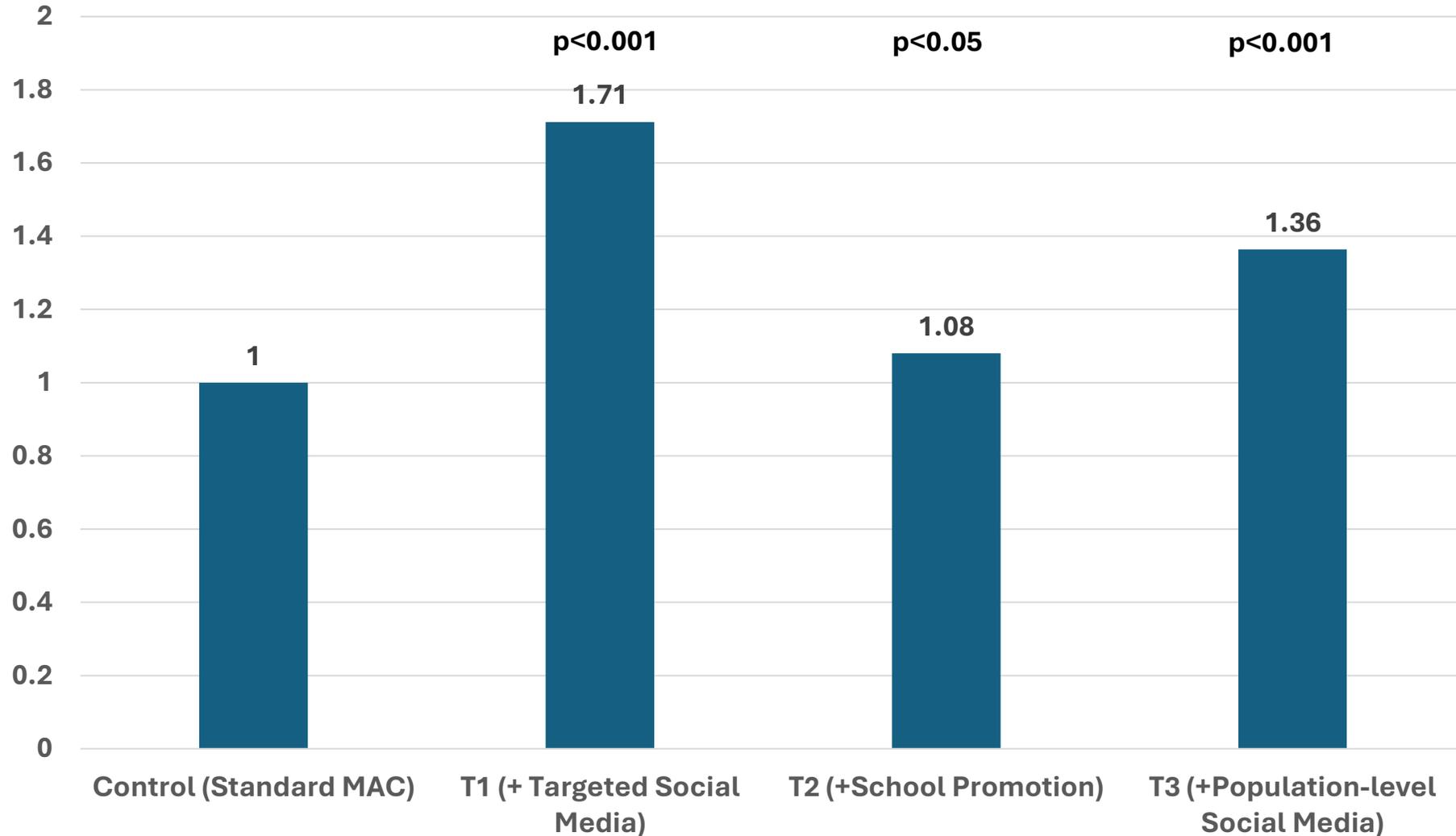
Education and gender were associated with HPV vaccination



We controlled for socio-demographic characteristics in a logistic regression analysis to assess the net effects of the interventions

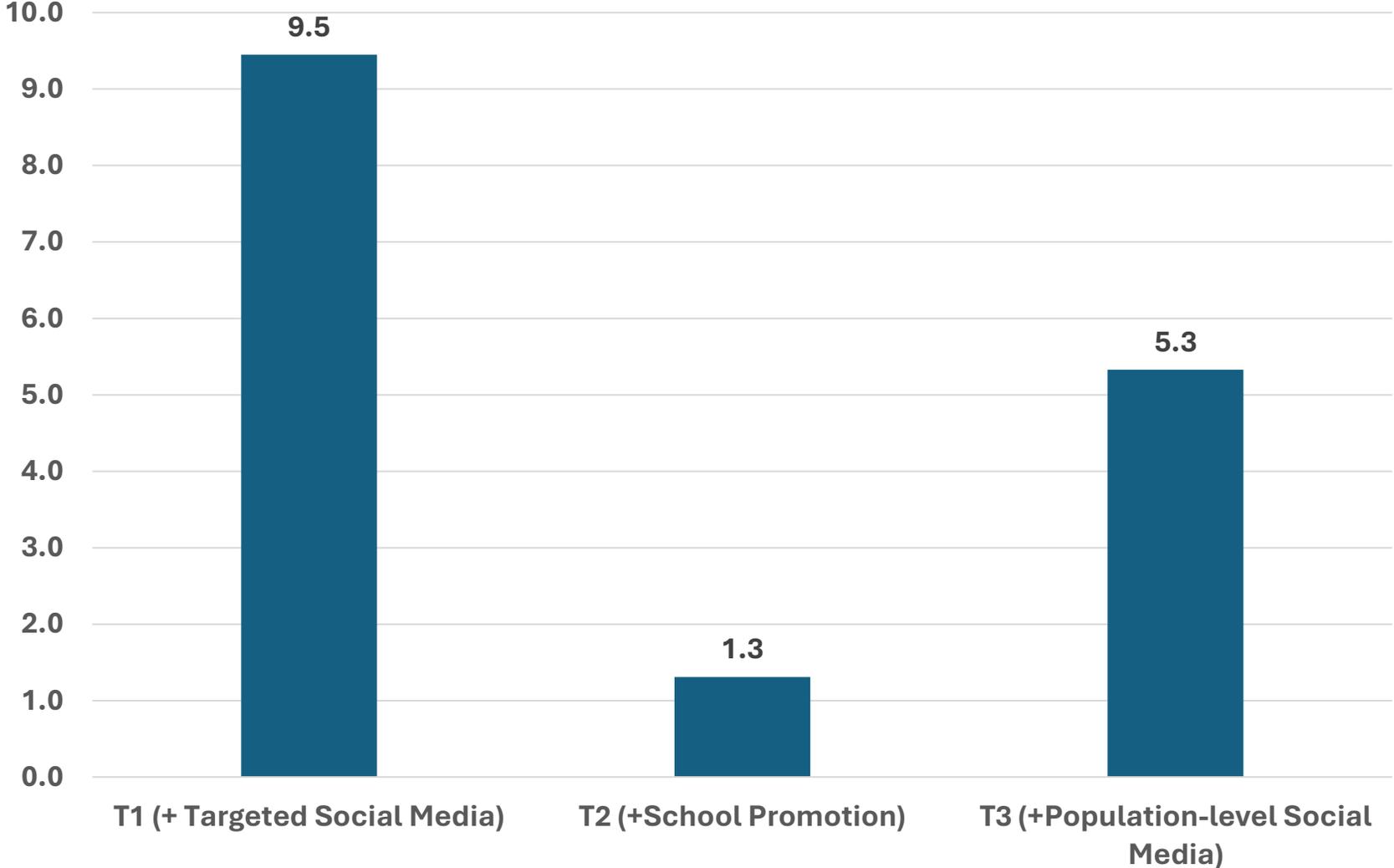
Net effects of the 3 interventions on HPV vaccination

Adjusted odds ratios from a logistic regression showing the effects of the three interventions



Net effects of the 3 interventions - percentage point change in vaccination

Change in predicted probability of HPV vaccination in intervention areas



Behavioral-insights driven social media interventions implemented during national campaigns can result in substantial increases in HPV vaccination

Implications

- Ensure that national campaigns are supported by **social media interventions that are based on behavioral insights.**
- Social media campaigns should consider focusing on **positive messaging** that reinforces community approval and hopes for the girl's future.
- Increase **communication between caregivers and their children** regarding HPV vaccination.
- Future campaigns should **not assume that fear-based messaging will necessarily have an impact.**
- Determine the **cost-effectiveness of targeted versus population-based social media campaigns** and determine choice based on feasibility in the local context.
- **Strengthen school-based promotion, ensure it is based on behavioral insights,** ensure that it is interactive.

END