

QI coaching versus communication training for improving HPV vaccination: A randomized implementation trial

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Background

Need to improve HPV vaccination

- Widespread vaccination could prevent most of the >34,000 HPV cancers diagnosed in the US each year.
- Despite national guidelines, only 45% of 13-year-olds completed the HPV vaccine series by 2019.
- Health departments offer an existing national workforce for implementing interventions to improve HPV vaccination.

AFIX QI coaching

We developed an HPV vaccine-specific version of the evidence-based national **AFIX (Assessment, Feedback, Incentives, and eXchange)** program.[†] AFIX includes:

- In-person QI coaching in which health department staff visit primary care clinics to provide education about vaccines;
- Assessment and feedback on clinics' own vaccination rates; and
- Guidance on implementation strategies to improve vaccine delivery.

AAT communication training

We delivered physician communication training using an adapted version of the **Announcement Approach Training (AAT)** intervention. AAT includes:

- A physician-delivered communication workshop that trains vaccine prescribers to use presumptive recommendations that introduce HPV vaccination as the default choice in routine care.
- Training specifically focused on helping the clinic's physicians and other vaccine prescribers improve their HPV vaccine recommendations.

Study aim

To compare two evidence-based interventions, AFIX QI coaching and AAT physician communication training, on implementation outcomes.

Methods & Results

Methods

In a cluster randomized trial, we allocated 855 primary care clinics in Arizona, New York, and Wisconsin to receive:

- 1) QI coaching (AFIX);
- 2) Physician communication training (AAT); or
- 3) Both interventions combined (AFIX+AAT).

In each arm, we assessed:

- **Adoption.** % of clinics receiving the allocated intervention out of those invited
- **Contacts per clinic.** Mean number of contacts needed to successfully schedule one clinic
- **Reach.** Median number of total staff and prescriber participants per clinic
- **Delivery cost.** from the health department perspective

Results

Adoption

- **More clinics adopted AFIX** than AAT or AFIX+AAT (63% vs 16% and 12%, both $p < .05$).

Contacts Per Clinic

- Recruiting clinics into **AFIX required fewer contacts** than AAT or AFIX+AAT (mean = 4.7 vs 29.0 and 40.4, both $p < .05$).

Reach

- **AAT and AFIX+AAT had higher reach** than AFIX, including prescriber participants (all $p > 0.05$, Figure 1)

Delivery Cost

- **AFIX cost \$439 per clinic**, including 10 hours of delivery time per clinic
- **AAT cost \$1,287 per clinic**, which included 20.2 hours of delivery time per clinic (Figure 2)

Figure 1. Reach: Number of participants by trial arm

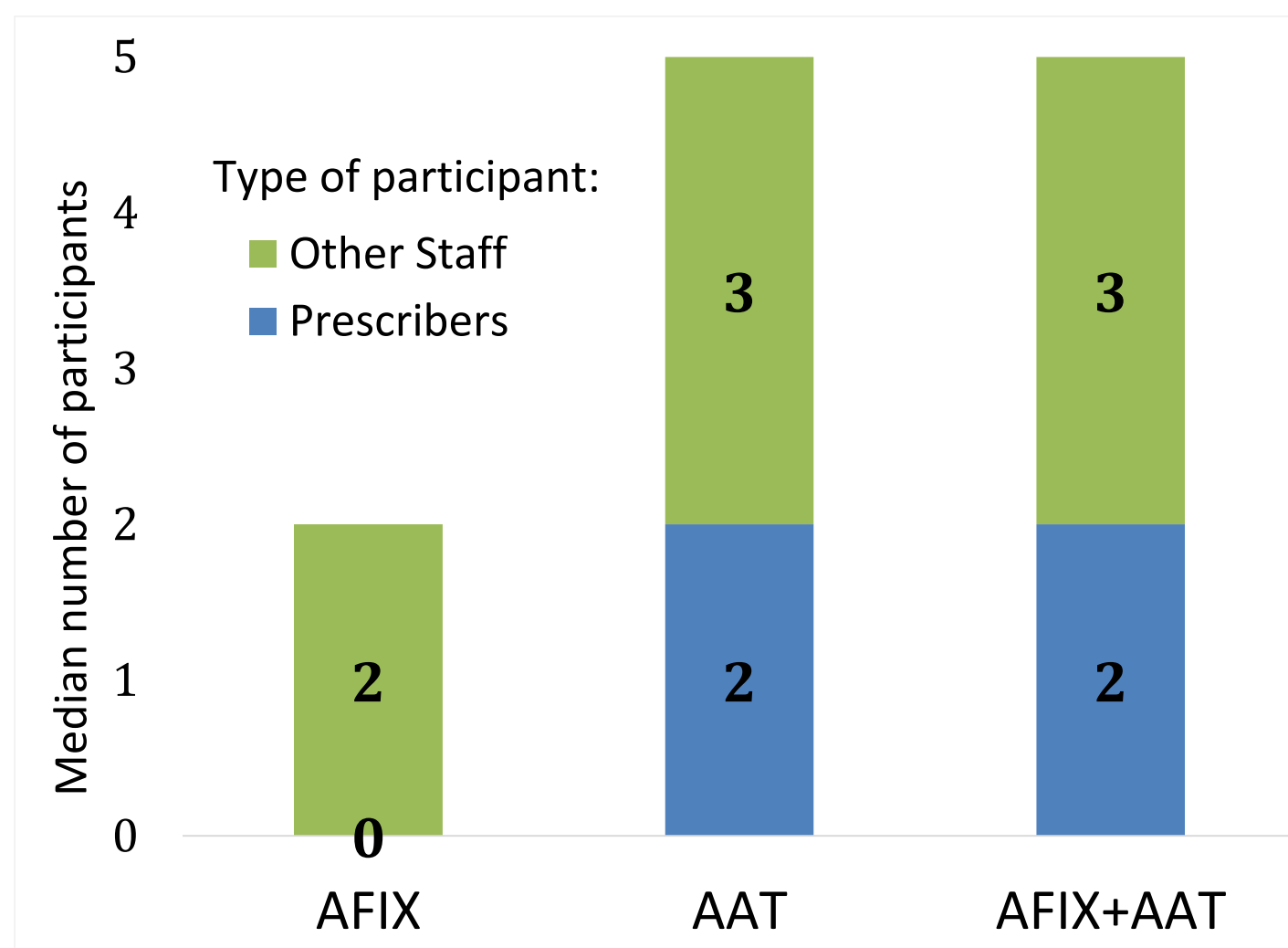
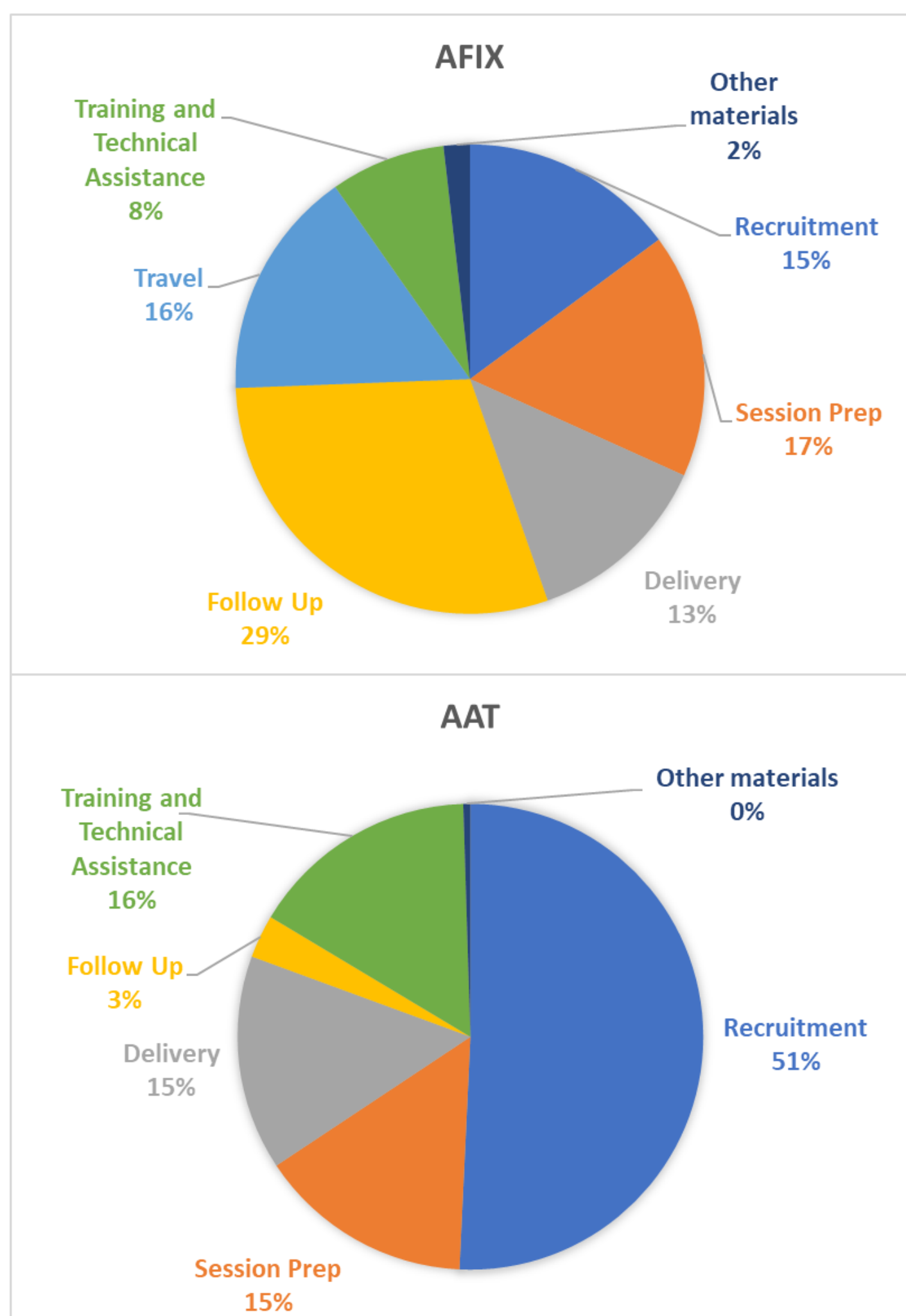


Figure 2. AFIX and AAT costs by activity



Discussion

Findings suggest that AFIX QI coaching and AAT physician communication training offer different implementation strengths and challenges as interventions for supporting HPV vaccination in primary care settings.

- **AFIX QI coaching** intervention was relatively widely adopted and low cost; however, the intervention reached fewer total staff per clinic.
- **AAT physician communication training** had lower adoption and was expensive due to high recruitment cost, but reached more total staff per clinic, including highly influential vaccine prescribers.
- **AFIX+AAT** involved similar strengths and challenges as the physician communication arm, but at higher cost.

Implications

We provide health departments with data needed to weigh the implementation strengths and challenges of QI coaching and physician communication training for increasing HPV vaccination coverage.

- QI coaching visits are a lower cost intervention, but a greater effort is needed to engage HPV vaccine prescribers.
- Our findings underscore the need to explore ways to make recruitment easier for remote delivery of physician communication training.

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