



# Comparison of immunization delivery quality improvement dissemination strategies

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## INTRODUCTION

Although most pediatricians complete American Board of Pediatrics Maintenance of Certification (ABP-MOC) Quality Improvement (QI) requirements via remote learning projects, there is scant evidence of the effectiveness of remote learning strategies in improving patient outcomes among geographically dispersed, unaffiliated practices.

## OBJECTIVES

To compare the effectiveness of two remote learning delivery strategies: **Quality Improvement Technical Support (QITS) & Pay For Performance (P4P)** for increasing patient vaccination up-to-date (UTD) status.

## METHODS

33 unaffiliated practices from 20 states, each with <86% of 3-to-18-month olds UTD with recommended vaccinations were randomized to 2 groups for 12 months of intervention:

- (1) **QITS:** participated in a virtual learning collaborative with six 1-hr web-based learning sessions, monthly QI coaching conference calls, and monthly performance feedback.
- (2) **P4P:** participated in self-directed learning with a tiered incentive program with potential to earn up to \$2000 for improvements in immunization coverage.
- Both groups received a Vaccinator Toolkit with educational material on vaccination best practices & the Model for Improvement.
- **Outcomes:** Determined by study staff review of 50 randomly selected medical records per practice pre- & post-intervention.

## RESULTS

**Odds of a child being UTD post-intervention (vs pre-intervention)** Adjusted for clustering by practice, child's age & child's mean number of monthly healthcare visits

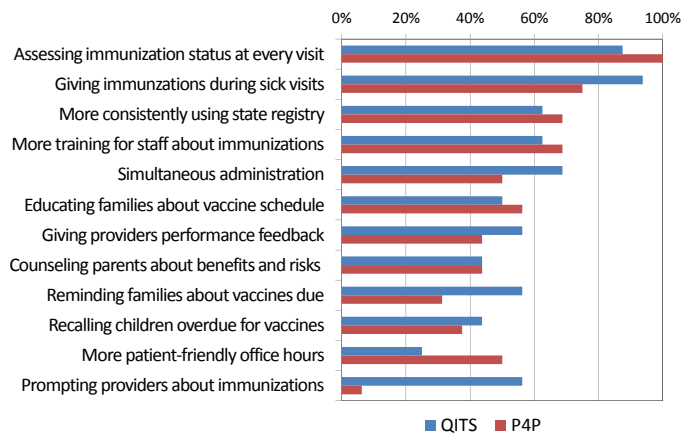
Group	# practices	# patients	aOR	95% CI
QITS	17	1695	1.30	(1.04, 1.63)
P4P	16	1552	1.17	(0.93, 1.47)

**Odds of a child being UTD post-intervention if in QITS (vs P4P)**

Adjusted for clustering by practice & percent of practice population UTD at baseline

# practices	# patients	aOR	95% CI
33	1621	1.03	(0.71-1.52)

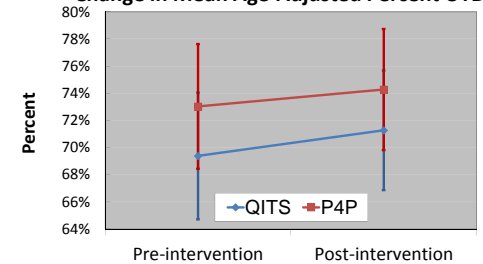
### Practices reporting implementing specified improvements



**As compared with practices in P4P, practices in QITS:**

- On average, completed more of cycles of test of change: 5 (95% CI: 3.5-6.5) vs 2 (1.5-3.5),  $p=.01$
- More often implemented new systems for prompting providers to administer vaccines: 56% vs 6%,  $p<.01$

### Change in Mean Age-Adjusted Percent UTD



## CONCLUSIONS

- Coaching may enhance staff engagement in testing incremental changes which might lead to improved vaccination delivery.
- Both QI coaching and incentivized self-directed QI learning appear to have led to improvements in immunization outcomes—QI coaching perhaps slightly more so than incentivized self-directed learning, although the difference between groups post-intervention was not significant.
- Consistent with findings that have raised questions about the effectiveness of virtual learning for improving patient outcomes, we found only small increases for both groups in objectively measured immunization coverage despite good engagement in QI activities.

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