Can the childhood influenza vaccination season be extended beyond December?

Lessons learned from the San Diego Influenza Coverage Enhancement (SDICE) Study

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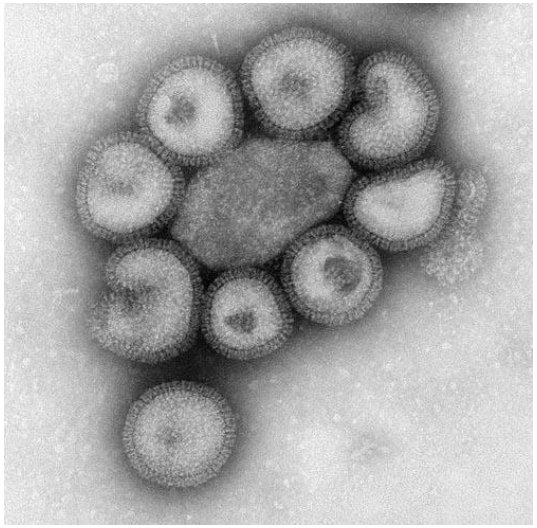
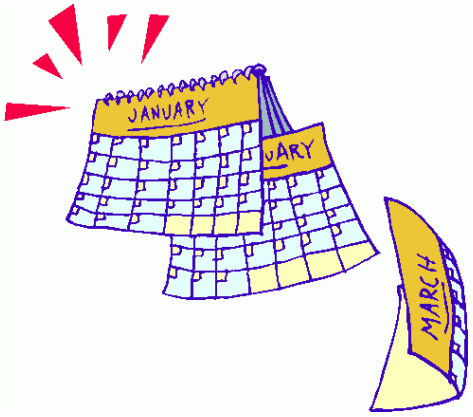
Background: Influenza

- Respiratory illness caused by influenza viruses
- Severe cases can lead to complications
  - Pneumonia
  - Bronchitis
  - Sinus and Ear Infections
  - Most likely to occur in high risk populations
  - Depends on which viruses are circulating



Background: Influenza Season

- October – March
  - Regular Season: October – December
  - Late Season: January – February
- In 2007, the CDC emphasized expanding influenza vaccination to January and later
  - Cases of influenza peak in February



Background: Influenza in Children

- High risk population
- Sustain highest attack rates during influenza epidemics
  - Preschool aged: >40%
  - School aged: 30%
- Initiate and maintain epidemics
- Increase medical costs
  - Care of sick children
  - Increased work absenteeism in adults

Background: Academic Detailing

- Based on a marketing strategy used by pharmaceutical manufacturers
- Form of continuing medical education
- Health educator visits a medical office to provide education on designated topics and feedback on performance
  - Ex: immunization rates
- Effective method of reaching providers to deliver key prevention methods and suggestions to improve delivery

Background: Strategies to Improve Coverage Rates

- Physician Medical Chart Reminders
- Reminder / Recall
- Vaccine Clinics
- Standing Orders
- Waiting Room Screening Forms
- Waiting/Exam Room Posters

Background: Current Vaccination Rates

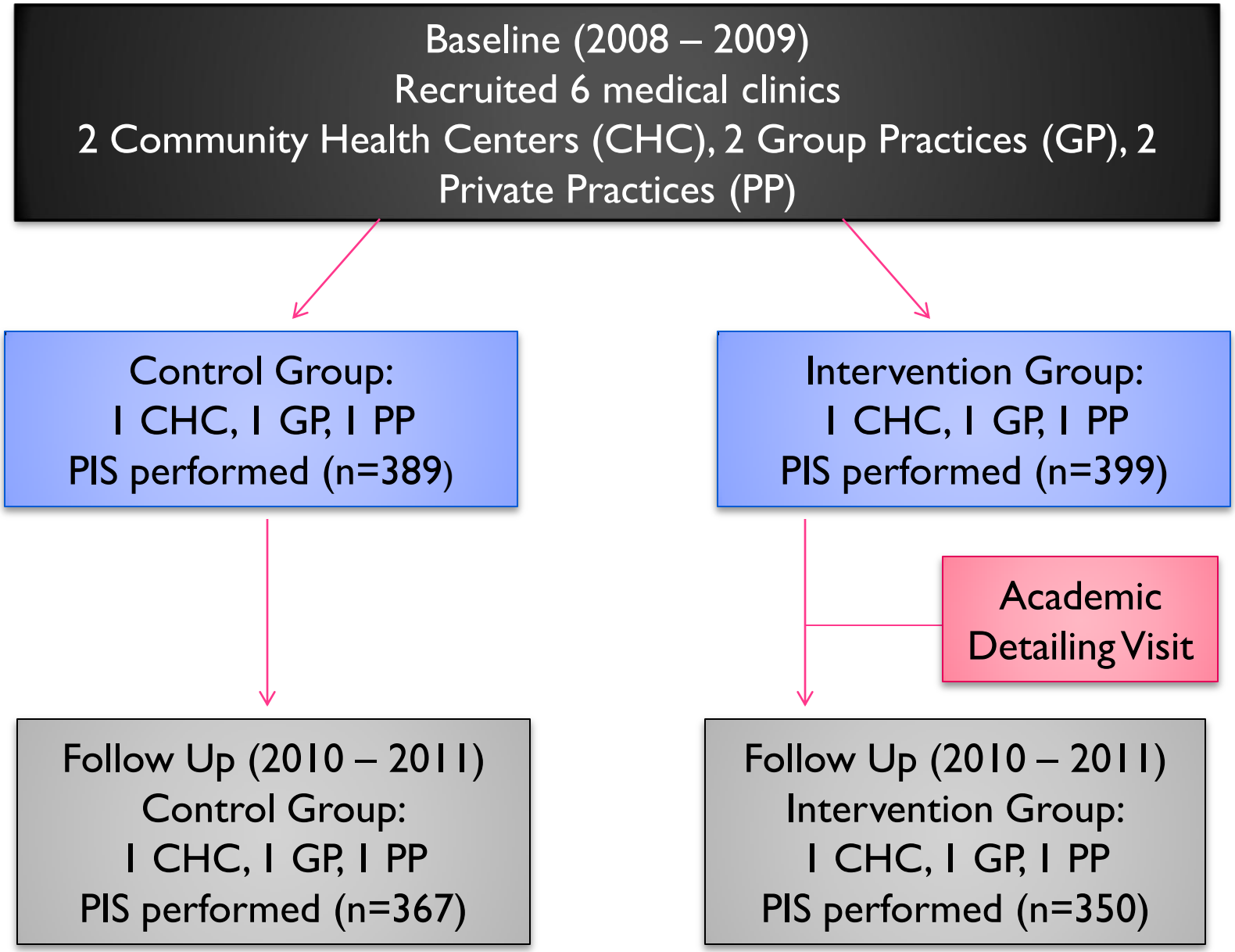
- Healthy People 2020 Goal
  - Children 6 months – 59 months: 80% influenza vaccination rate
- National Rates (2010-2011 Season)
  - 6 months – 59 months: 60.9%
- California Rates (2010-2011 Season)
  - 6 months – 59 months: 64.8%

Center for Disease Control and Prevention, National Flu Survey. (2011). *Results from the March 2011 National Flu Survey--United States, 2010- 11 influenza season*. Retrieved from website: http://www.cdc.gov/flu/pdf/professionals/vaccination/fluvacsurvey.pdf

Study Design: Data Set

- San Diego – Influenza Coverage Enhancement (SD-ICE) Project
- Two year intervention project funded by the CDC
- Goals:
  - Increase influenza vaccination rates in children 6 – 59 months old
  - Increase late season vaccination rates

Study Flowchart



Academic Detailing Visit

- Intervention practices received a loose leaf binder with:
  - Influenza vaccination coverage rates from chart audit performed
  - Comparison of practice coverage rates with other practices in study
  - Information of evidence based strategies to increase influenza rates
  - Templates for screening forms, posters, etc.

Research Question 1

Do intervention clinics experience the expected increase in influenza vaccination rates the follow up year in comparison to the baseline following the academic detailing intervention?

Research Question 2

Do intervention clinics exhibit the expected increase in late season influenza vaccination rates the follow up year in comparison to the baseline following the academic detailing intervention?

Results: Increase in vaccination rates?

Study group and year comparisons of influenza vaccination coverage rates by study group for children 6-60 months			
	Coverage Rate (%)	OR (95% CI)	p-value
Control			0.1641
Baseline	73.0	1.00	
Follow Up	77.4	1.27 (0.91, 1.76)	
Intervention			0.0313*
Baseline	55.4	1.00	
Follow Up	63.1	1.38 (1.03, 1.85)	

* Where $p<0.05$ considered statistically significant

Results: Increase late season?

Study group and year comparisons of influenza vaccination coverage rates during regular or late season for children aged 6-60 months

	Regular Season (%)	Late Season (%)	OR (95% CI)	p-value
Control				0.243
Baseline	76.6	23.4	1.00	
Follow Up	72.2	27.8	1.26 (0.85, 1.87)	
Intervention				0.053
Baseline	79.5	20.5	1.00	
Follow Up	71.5	28.5	1.55 (0.99, 2.42)	

* Where $p<0.05$ considered statistically significant

Conclusions

- As a result of the academic detailing intervention:
  - Intervention clinics experienced a significant increase in influenza vaccination rates in the follow up year in comparison to the baseline ($p=0.0377$).
    - For patients in the intervention group, the odds of receiving influenza vaccination are 1.38 (95% CI: 1.03, 1.85) times higher the follow up year compared to the baseline.

Conclusions

- Intervention clinics experienced a borderline significant increase in late season influenza vaccination rates the follow up year in comparison to the baseline (p=0.053).
  - For patients in the intervention group, the odds of receiving late season influenza vaccination are 1.55 (95% CI: 0.99, 2.42) times higher the follow up year compared to the baseline.

Contribution to the Field

- Reduce morbidity and mortality from influenza in children
- Not many academic detailing studies for influenza vaccination in children
- Success with low intensity academic detailing provides cost effective way to improve immunization rates
  - Good for public health department use
- Methods from this study can be applied to improve other vaccine immunization rates

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