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# Trends in the Administration of Seasonal Influenza Vaccine Among Pediatricians in Private Practice, 2007–2008 through 2010–2011

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## Background

- In 2007, the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices recommended that vaccinations against influenza be administered as soon as the vaccine becomes available.<sup>1</sup>
- There are little prospectively-collected data available on the recent use of influenza vaccines by U.S. pediatric providers.
- Health insurance claims data from privately insured children have shown a trend towards earlier use of influenza vaccine among pediatricians in recent seasons.<sup>2</sup>
- Studies have also shown that influenza vaccines from the Vaccines for Children (VFC) program are administered approximately 4 weeks later than privately-purchased vaccines.<sup>3</sup>

## Objective

- To describe pediatric influenza vaccination in a geographically diverse sample of U.S. pediatricians for the 4 influenza seasons from 2007 through 2011

## Methods

- A prospective, observational study was conducted during the 2007–2008 through 2010–2011 seasons.
  - Each season, 42, 84, 84, and 111 U.S. outpatient pediatric offices participated in the study, respectively.
- Data were captured from August 1 through March 31 in the 2007–2008, 2008–2009, and 2009–2010 seasons and from August 1 through January 31 in the 2010–2011 season.
- Medical offices were recruited from a random sample of US licensed pediatricians.
- Primary inclusion criteria included the provision of on-site influenza vaccines and accurate assessment of pediatric patient population by age. Hospital-based clinics were excluded.
- Seasonal influenza vaccinations were prospectively captured (by hand tally) by age group, VFC status, and vaccine type, semimonthly.
  - Data regarding administration of 2009 monovalent H1N1 vaccines are not presented.
- Influenza vaccines provided at other sites (eg, schools) were not tracked.

## Results

- The proportion of offices administering seasonal influenza vaccine during the months of August and September increased from 2007–2008 to 2009–2010 and was similar between 2009–2010 and 2010–2011 (Figure 1).
- Through September 30, 2010, the mean number of pediatric seasonal vaccinations per office was 434, compared with 464, 115, and 44 for the same time period in 2009, 2008, and 2007, respectively (Figure 2).

Figure 1. Percentage of Offices Administering Seasonal Vaccines by Date in Each Season

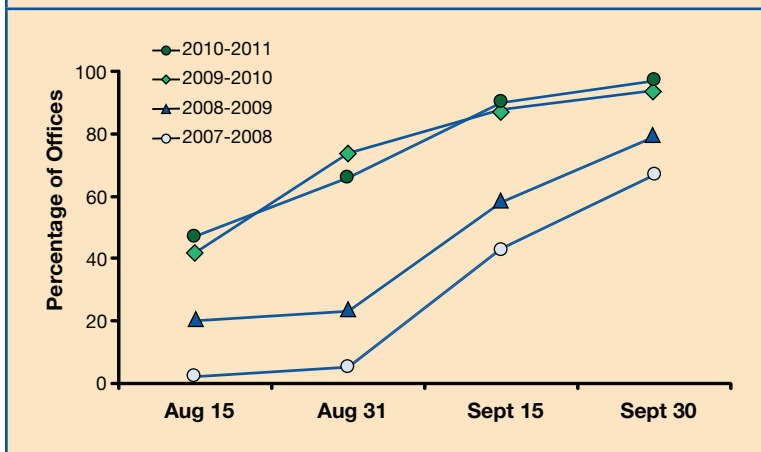
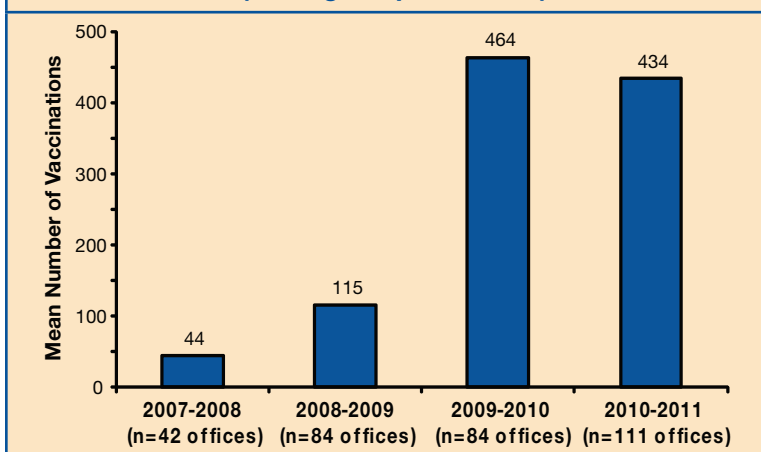
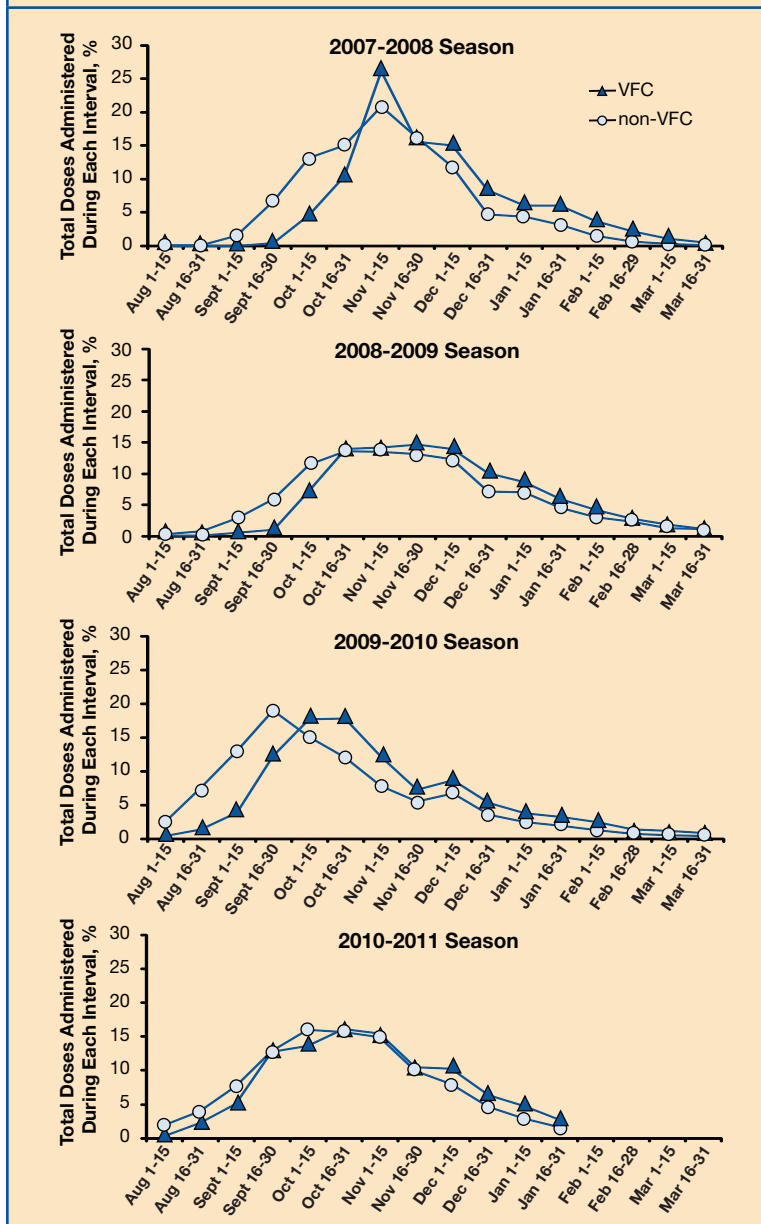


Figure 2. Mean Number of Vaccinations per Office Each Season (Through September 30)



- Relative to previous seasons, in 2010 the timing of initial administration of seasonal VFC vaccine more closely mirrored that of non-VFC vaccines (Figure 3).

Figure 3. Timing of VFC and non-VFC Vaccination 2007–2008 to 2010–2011



- The method of vaccination varied by age.
  - The majority of children 6–23 months of age were vaccinated using an injectable prefilled syringe (Figure 4).
  - Among children 2–18 years of age, there was a progressive increase in the use of the intranasal vaccine (Figure 5).

Figure 4. Children Aged 6–23 Months: Vaccinations by Vaccine Type and Season

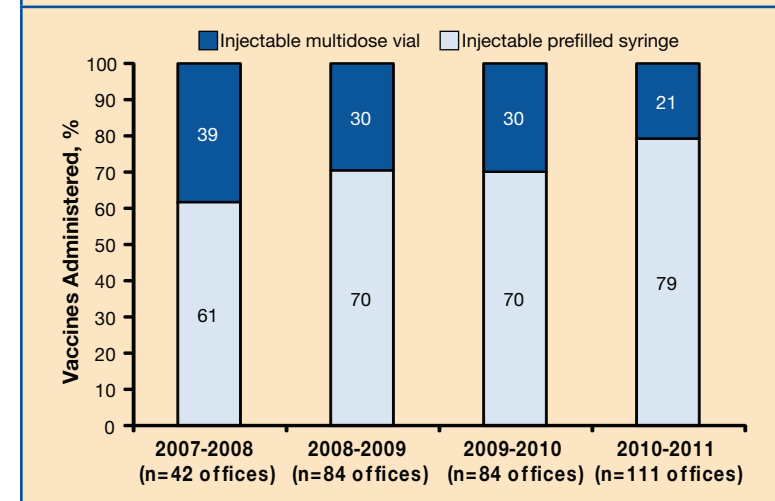
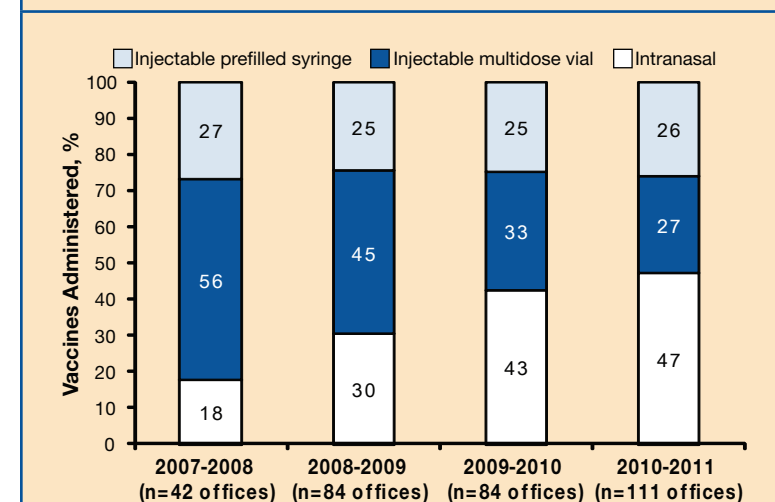


Figure 5. Children Aged 2–18 Years: Vaccination by Vaccine Type and Season



## Conclusions

- Measured as a percentage of offices administering vaccine, early-season (pre-October) pediatric seasonal influenza vaccination has become more common since 2007 and appears to be as common in 2010 as it was in 2009.
- The trend of delivering seasonal influenza vaccine early in the season during the 2009–2010 pandemic season has continued into the 2010–2011 season.
- Compared with previous seasons, the timing of the administration of VFC vaccine in 2010–2011 more closely mirrored that of privately-purchased vaccines.

## References

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- Toback S, et al. (submitted for publication).
- Bhatt P, et al. *Pediatr Infect Dis J*. 2011;30(2):100-106.

Sponsored by MedImmune, LLC.