



Influenza Vaccination Uptake among Diabetes Patients in Community Pharmacies

Presented at the American Diabetes Association 74th Scientific Sessions,
San Francisco, CA, June 13-17, 2014

Community pharmacies provide additional access and convenience as well as immunization counseling in order to maximize essential care for diabetes patients. The study found that 86.2% of patients immunized in the study were vaccinated before peak flu season.

BACKGROUND

- Individuals living with diabetes mellitus are six times more likely to be hospitalized with influenza during flu epidemics.¹
- People with diabetes are highly recommended to receive a seasonal influenza and pneumococcal disease vaccination to reduce the risk of health complications, hospitalization, and mortality.²
- Influenza vaccination has been associated with a 54% reduction in hospitalizations and a 58% reduction in deaths among patients with diabetes.³
- The CDC refers to pharmacies as nontraditional locations for receiving vaccines, offering advantages such as community-based locations, access, and convenience.⁴
- Community pharmacies are uniquely positioned to increase immunization rates among these high-risk individuals. Pharmacists may be especially effective in immunizing diabetes patients who are more likely to utilize pharmacy services for prescription medication than the general population.⁵
- In addition, pharmacists may conduct a comprehensive immunization assessment at the time of vaccination to assist patients with determining which other immunizations they may need based upon recommendations from the U.S. Centers for Disease Control and Prevention (CDC).

OBJECTIVE

- The objective of this study was to investigate uptake of seasonal influenza and pneumococcal disease vaccinations among persons with diabetes utilizing a community pharmacy chain.

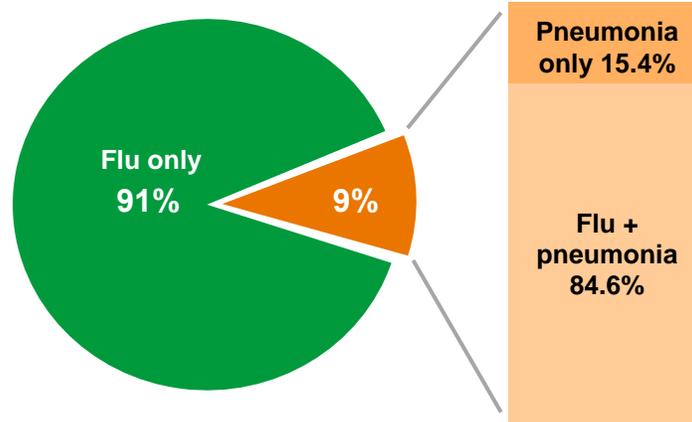
METHODS

- A retrospective data review was conducted on all vaccinations administered at the Walgreens pharmacy chain between August 2012 and July 2013.
- Diabetes patients were defined as those having one or more prescriptions for diabetes medication filled at the pharmacy.
- The volume of influenza and pneumococcal disease vaccinations among diabetes patients was determined.

RESULTS

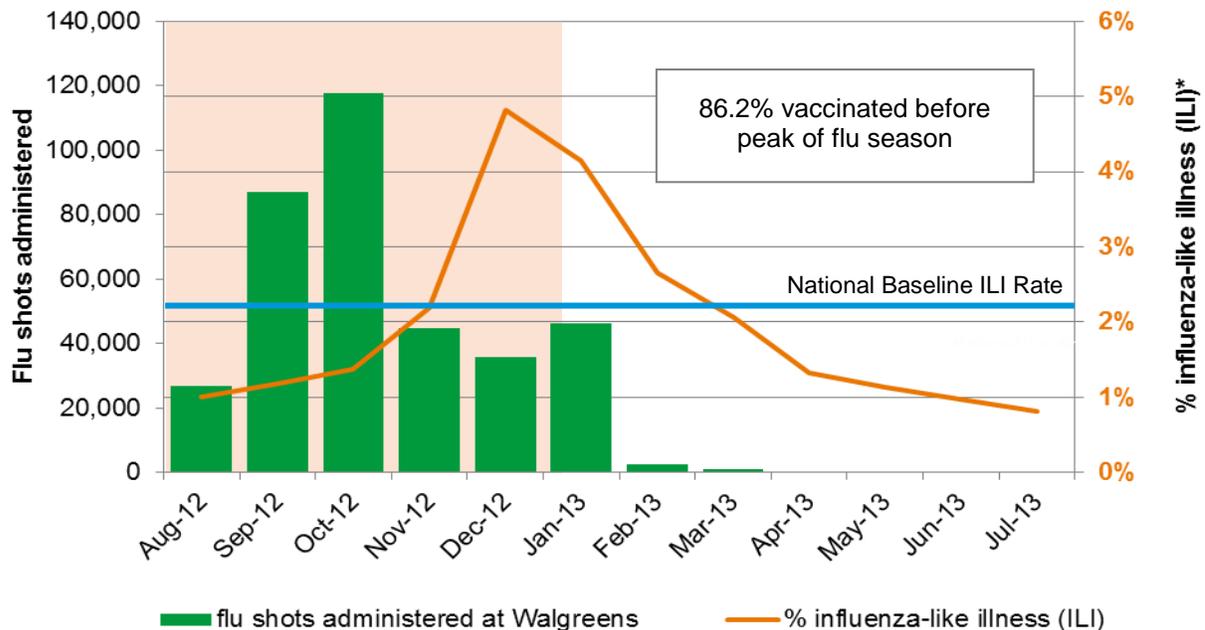
- During the study period, there were 361,609 influenza and 34,924 pneumococcal vaccinations administered to diabetes patients at the community pharmacy.
- Most (29,544 or 84.6%) of the diabetes patients receiving a pneumococcal vaccination also received an influenza vaccination (Figure 1).

Figure 1. Diabetes patients receiving Immunizations: Distribution of vaccine type



- 86.2% of the influenza vaccinations administered to diabetes patients were between August and December, offering maximum protection early in the influenza season (Figure 2). The 2012-2013 influenza season peaked in December, when the rate of influenza-like illness (ILI) was 4.8% - more than twice the national baseline rate of 2.2%, which is the threshold at which flu activity is considered above normal (determined by the CDC).⁶

Figure 2. Flu shots administered to diabetes patients and influenza activity in the United States



*Monthly averages from CDC FluView influenza surveillance data

CONCLUSIONS

- Community pharmacies provide additional access and convenience as well as immunization counseling in order to maximize essential care for diabetes patients, who are at increased risk for health complications due to influenza and pneumococcal disease.
- This study highlights the important role of community pharmacies in immunizing the population, including high-risk patients, before the peak of influenza season.

References:

1. International Diabetes Federation. Diabetes and Influenza. 2014; <http://www.idf.org/regions/EUR/diabetes-and-influenza>. Accessed March 27, 2014.
2. Fiore AE, Uyeki TM, Broder K, et al. Prevention and control of influenza with vaccines: recommendations of the Advisory Committee on Immunization Practices (ACIP), 2010. *MMWR. Recommendations and reports: Morbidity and mortality weekly report. Recommendations and reports / Centers for Disease Control*. Aug 6 2010;59(RR-8):1-62.
3. Looijmans-Van den Akker I, Verheij TJ, Buskens E, et al. Clinical effectiveness of first and repeat influenza vaccination in adult and elderly diabetic patients. *Diabetes Care*. Aug 2006;29(8):1771-1776.
4. Postema AS, Breiman RF. Adult immunization programs in nontraditional settings: quality standards and guidance for program evaluation. *MMWR. Recommendations and reports: Morbidity and mortality weekly report. Recommendations and reports / Centers for Disease Control*. Mar 24 2000;49(RR-1):1-13.
5. Francis MAH. Vaccination services through community pharmacy: a literature review. *Public Health Wales*; 17 August 2010 2010.
6. Centers for Disease Control & Prevention (CDC). Seasonal Influenza (Flu): Overview of Influenza Surveillance in the United States. <http://www.cdc.gov/flu/weekly/overview.htm>. Accessed April 15, 2014.

AMA Citation:

Fensterheim L, Taitel M, Cannon A, Brne T. Influenza vaccination uptake among diabetes patients in community pharmacies. Presented at the American Diabetes Association 74th Scientific Sessions; June 13-17, 2014; San Francisco, CA.

Contributing Authors:

Leonard Fensterheim, MPH; Michael Taitel, PhD; Adam Cannon, MPH; Tim Brne, RPh
Walgreen Co, Deerfield, IL

For more information on this presentation, please contact: research@walgreens.com.

This research was funded internally by Walgreen Co. All authors are employees of the employer, Walgreen Co., for whom this research was conducted.