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Improving Annual Influenza Vaccination Through Patient Education

A COMMUNITY PROJECT FOR THE FAMILY MEDICINE
ROTATION AT ST. ALBANS PRIMARY CARE

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Rotation 7

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Mentor: Dr. Toby Sadkin

2A: Problem Identification and Need

- ❑ Influenza, commonly called Flu, is a seasonal respiratory virus which circulates each year and causes mild to severe illness which can lead to hospitalization and even death. Flu is commonly thought to be a concern only for children and the elderly. However, many people are at increased risk of flu-related complications; including: pregnant women, American Indians and Alaskan Natives, residents of long-term care facilities, and those with chronic health issues (asthma, diabetes, heart disease, lung disease, HIV or AIDs, cancer, morbid obesity).¹
- ❑ Young, healthy adults are also affected by flu. “During the 2009 H1N1 pandemic, adults aged <65 years were at higher risk for influenza-related complications...compared with typical influenza seasons.” That year, hospitalizations among younger age groups increased beyond those seen in any recent influenza season, while hospitalizations among those aged ≥65 decreased. During the 2013-2014 flu season, adults 18-64 years made up almost 60% of flu-related hospitalizations.^{2,5}
- ❑ Flu can be unpredictable, severe, and, despite the advent of the flu vaccine during the Second World War, flu-related illness is the 8th leading cause of death in the United States. Estimates of annual flu-related deaths, from 1976 to 2006, number between 3,000 and 49,000 (2003-2004).^{3,4}
- ❑ Each year the severity of flu in the United States is affected by many factors including characteristics of the circulating virus, timing of the season, how well the vaccine matches the season’s active strains of virus and vaccination rates.⁵

2B: Problem Identification and Need

- Annual vaccination rates remain low despite public awareness of the illness and the vaccine.
- As of November 5, 2015, only 39% of Americans had received the vaccination.⁶
- As of March 9, 2016, 56.8% of St. Albans Primary Care's 3,059 active (seen in the last year) patients had received a flu shot. While higher than national rates, room for improvement remains.

Flu Vaccination Coverage by Demographic, Vermont (2010-2011 ⁷ , 2013-2014 ⁸) as Compared to the United States (2014-2015 ^{9,10})		
	% VT	% US
Everyone (≥ 6 months)	<i>Data not available</i>	47.1
Children (6 months to 17 years)	<i>Data not available</i>	59.3
Adults (≥ 18 years)	44	43.6
Adults (18–64 years)	<i>Data not available</i>	38.0
Elderly (≥ 65 years)	63	66.7
Pregnant	65	50.3

3: Public Health Cost

- ❑ Estimates of the annual burden of influenza include:
 - ❑ \$10.4 billion in direct medical expenses
 - ❑ \$16.3 billion in lost earnings
 - ❑ \$87 billion in total economic burden
 - ❑ 31.4 million outpatient visits
 - ❑ 200,000 hospitalizations ^{5,11}
- ❑ The federal Vaccines For Children and Vaccines for Adults programs provide flu vaccine for children and adults who would be otherwise unable to pay. Each year Vermont orders 65,000 doses of vaccine for children and distributes them free of charge to providers.
- ❑ The cost per dose of flu vaccines range from \$7.24 to \$25.07 for the CDC and from \$14.41 to \$35.75 for the private sector, depending on vaccine type.¹²
- ❑ One study showed the average cost for an emergency department visit for influenza to be \$141.89 versus \$3,251.04 if hospitalized for influenza.¹³
- ❑ Therefore, flu vaccination can save a patient hundreds to even thousands of dollars in personal expenses.

4A: Community Perspective

- Over the course of five weeks, over thirty patients without a documented or up-to-date influenza vaccination were asked about their vaccination status.
- Less than ten of these patients had been vaccinated at another location; their immunization statuses were then updated accordingly.
- The majority of these patients replied with a variety of reasons for declining immunization.
- Reasons for declining included
 - I have a strong immune system
 - I or someone I know got sick/more sick from the flu shot
 - I have never recieved a flu shot and have never had the flu
 - I had an allergic reaction (rash) to the vaccination

4B: Community Perspective

□ Name withheld, Vermont State Health Official

"The most common reasons for declining a flu vaccine by all (including health care providers) is lack of awareness of need, didn't think it was effective and concern regarding adverse effects. Even though you really cannot get the flu from the vaccine, many people are concerned about this. I also think that adults from 20-50 years, don't realize that they may pass the flu to older adults or young children who may not respond well to immunization."

5: Intervention & Methodology

Intervention:

- ❑ Increase annual influenza vaccinations among St. Albans Primary Care patients by helping providing education on the need for annual influenza vaccination, the effectiveness of the vaccine, the facts regarding vaccine side effects, and the availability of vaccine types for those with contraindications to traditional flu vaccines.

Methodology:

- ❑ Interview experts in the field of public health as well as patients and with undocumented influenza immunization regarding the vaccine.
- ❑ Create a poster to display in the St Albans Primary Care exam rooms which provides necessary information on the need for, effectiveness, safety, and available types of influenza vaccines.

6: Results/Response

- ❑ Over thirty patients were interviewed regarding their undocumented influenza immunization status. Highlights from these interviews are summarized in the Community Perspective section.
- ❑ A poster was created and will be displayed as planned in St. Albans Primary Care exam rooms.
- ❑ St. Albans Primary Care providers involved in the planning and implementation of this project were optimistic concerning the project's potential benefit.

7: Effectiveness & Limitations

Effectiveness:

- ❑ At this time the poster has not been on display so there is no plausible way to objectively evaluate its effectiveness.
- ❑ In one year's time a chart review could be performed comparing practice vaccination rates for the 2015-2016 flu season to the 2016-2017 flu seasons. Changes in rate could be attributed, in part, to the poster.
- ❑ In one year a survey of patients with documented influenza vaccinations could be taken regarding the effect the poster had on their decision to receive the vaccination.

Limitations:

- ❑ At the time of this project's completion, it was nearing the end of the typical the flu season and administration of vaccines for this year were soon to be stopped
- ❑ The poster is competing with other pamphlets, flyers, and posters in the exam rooms as well as for the patient's attention in a world where mobile devices are commonly being used by patients while waiting to see the physician
- ❑ The poster assumes the patient is literate in the English language.
- ❑ The poster must compete with a bias and anecdotal evidence against vaccines.
- ❑ The length of this rotation does not allow enough time for follow-up evaluation of the project's effectiveness.

8: Future Interventions/Projects

- ❑ Follow-up evaluation on the effectiveness of the poster could be performed as commented on in the Effectiveness & Limitations section.
- ❑ A survey of St. Albans Primary Care patients could be conducted regarding the most effective way to communicate and educate on health care recommendations.
- ❑ The poster could also be displayed throughout the practice or converted into other forms of media, such as a vocal recording accompanying telephone hold music.
- ❑ The aim of the project could be expanded beyond the practice to the community or state level.

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