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## BACKGROUND

- Evidence shows that every year, thousands of people die from influenza in the United States (Centers for Disease Control and Prevention, 2017).
- The US department of Health and Human services reports that in the last influenza season deaths related to the influenza virus have increased in persons who did not receive the recommended influenza the influenza vaccine protects the person vaccinated (CDC, 2017).
- Persons infected with influenza can potentially end up in the hospital or die (Centers for Disease Control and Prevention, 2017).
- Healthcare workers (HCW) are more susceptible to influenza because of their exposure to sick persons multiple times during a work day, it should be instinctive for healthcare workers to want to protect themselves from the virus (CDC, 2017).

## EVIDENCE FOR THE PROBLEM

- Influenza is a seasonal and sometimes pandemic illness that occurs throughout the world.
- In the United States, it is a seasonal illness that does not discriminate against the host. Health care workers are at the frontline of caring for people who are infected with the influenza virus which makes them more susceptible.
- The average rate of HCW that got vaccinated with the influenza vaccine was 64.3% during the 2014-2015 season across the United States of America (CDC Foundation, 2018).

## EVIDENCE-BASED INTERVENTION

- In the United States, approximately 60% of HCWs are vaccinated annually (CDC, 2017).
- The County of Los Angeles Public Health department (LAC/DPH) has a regulatory mandate for all HCWs to either get vaccinated or wear a mask during the entire influenza season: November 1<sup>st</sup> through April 31<sup>st</sup> (Gunzenhauser, 2017).
- If education was required and provided for the HCWs, the rates in vaccine uptake for HCWs should increase.
- The review of literature indicates that improving HCW knowledge regarding evidence to support vaccination may improve compliance with annual influenza vaccination rates.

## PURPOSE/PICOT

The Purpose of this Process Improvement Project is to increase the uptake of HCW receiving the influenza Vaccine.

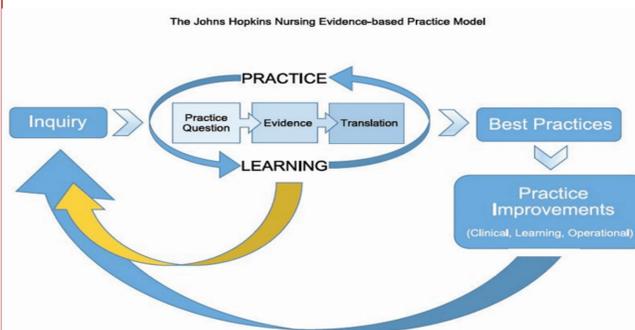
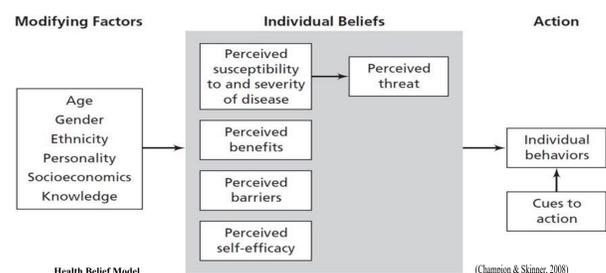
**P:** Ambulatory care healthcare workers in department with low uptake of influenza vaccine

**I:** Educational intervention to HCW to improve adherence and increase rates of uptake of the annual influenza vaccine

**C:** Compare influenza administration rates for HCW pre- and- post influenza vaccine education

**O:** Increase vaccination rates among HCWs post intervention

## EBP MODEL/Framework



## PROJECT PLAN PROCESS

- The plan is to provide education to HCWs with respect to evidence on the efficacy of the vaccine, myths, benefits, and required mandate for wearing mask during season if not vaccinated.
- Pre-intervention rates of vaccine uptake among HCW in the setting will be collected.
- Post-intervention, rates of vaccine uptake will be compared to pre-intervention data.
- Additionally, data regarding the percentage of HCWs participating in the intervention will be collected.

## PROJECT PLAN PROCESS CONTINUED

Tasks to be completed to run test of change	Who	When	Tools/Training Needed	Measures
Prepare educational material regarding Influenza vaccine and discuss the myths and reasons for persons not wanting to receive the vaccine	The facilitator with assistance for organizational Educators	During the first 4 months prior to Influenza season	PowerPoint presentation, Handouts, and influenza Vaccine	Have HCW complete post-educational survey
Provide access to HCW to receive Influenza vaccine	Educators and Registry staff hired for Influenza season	During the first 4 months prior to Influenza season	Influenza Vaccines, locations accessible to vaccinate, Provide roving flu carts to all departments at the medical center during all three shifts	Track the number of employees who received the vaccine versus the previous year

## COST-BENEFIT ANALYSIS

- The actual cost per vaccine ranges from \$15.77- \$20.11/ 10 dose vials or 10 single dose syringes (CDC, 2018).
- There are approximately 6,400 HCWs with an estimated cost of \$10,048- \$12,864 per influenza vaccine.
- Approximately 5-20% of persons are infected with the influenza virus every year. Of these persons, the cost for outpatient visits is 31.4 million, 10.4 Billion in direct medical expenses, and 16.3 billion in lost earning each year (CDC Foundation, 2018).

## METHODOLOGY

- Provide education on the influenza vaccine to HCWs
- Inclusion Criteria – Employed as a HCW in a uptake.
- Quantitative, post-educational survey only
- Chi-Square
- Independent variable – Education on influenza vaccine
- Dependent variable – Results of rate increase in influenza vaccine uptake of HCW and the results of the post-education survey

## RESULTS

### Vaccination Rates Data 2018 and 2019

- The results were gathered from the Tableau database.
- A chi-square analysis was used and indicated more participants declined the flu vaccine in 2019 (n=25, 56.8%) than in 2018 (n=10, 19.6%;  $\chi^2 (1) = 6.33, p = 0.01$ ).
- Can an educational intervention make a difference, the answer was yes.
- The educational intervention made the rates of getting vaccinated less.

## RESULTS

### Vaccine Survey Rate Results

- The survey results stated 40 (90.9%) participants received the vaccine in 2018.
- In 2019, only 37 (84.1%) received the vaccine.
- A chi-square analysis indicated no difference between actual 2019 vaccination rates and participants' response to having the vaccine,  $\chi^2 (2, n = 4.6) = 3.07, p = 0.22$
- The educational intervention revealed the rates of getting vaccinated decreased among HCWs.
- There was no impact after educational intervention from 2018-2019.

## IMPLICATIONS FOR PRACTICE

- Evidence shows that educational programs have been shown to increase influenza vaccine rates (Leung, et al., 2017).
- HCWs are exposed when caring for many people afflicted with an illness which increases the HCW's vulnerability.
- HCWs must take preventative measures such as receiving annual influenza vaccine, if not contraindicated, to remain healthy.
- Receiving the influenza vaccine will protect the HCWs, patients, family members and coworkers from the influenza virus.

## CONCLUSIONS

- Educational intervention is successful in other studies.
- The educational intervention in this PIP demonstrated that it was effective in the reduction of vaccinated employees in the EVS department.
- Continued studies need to be performed to conclude that an educational intervention is effective with the uptake of the influenza vaccine in HCWs.

## REFERENCES



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## ACKNOWLEDGEMENT OR CONTACT

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