Understand the Efficacy of Seasonal Influenza Vaccine (SIV) to Improve Uptake Rate among Health Care Workers (HCWs) in PYNEH

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Hello! Let’s Get the Flu Shot!

Staff query on the efficacy of SIV

Study for the SIV

Break the myth of the SIV
Objective
- To understand the influenza vaccine efficacy among HCWs in PYNEH
- To strive for improvement in the SIV uptake rate

Methodology
- Data from SESAS → Staff with respiratory-associated illness# and / or influenza like illness* recruited as case
  - Line to take → Illness reported ≥ 14 days after vaccination (i.e. ~2 weeks to build up immunity)
- Data from CMS immunization module → Staff influenza immunization status

Study Period
- Conducted over staff vaccination season during Oct 17 – Jun 18

Statistical Analyses
- Pearson Chi-Square Test or Continuity Correction is used
- Univariate analysis between case (HCW reported sickness in SESAS) and control (Staff received SIV)

# Fever (Temp≥ 38°C) / Sore Throat / Running Nose / Productive Cough
* Fever (Temp≥ 38°C) AND either Sore Throat / Productive Cough
• 5,322 Eligible subjects

Protect staff from Respiratory-associated Illness
Odds Ratio: 0.47
P-value:<0.001
Statistically Significant
2.13 times Protection

Protect staff from Influenza-like Illness
Odds Ratio: 0.45
P-value:0.002
Statistically Significant
2.22 times Protection

1,447
3,875
### Result

**Subgroup Analysis**

- **4,464 Clinical Staff are recruited**

<table>
<thead>
<tr>
<th>Respiratory-associated Illness#</th>
<th>Vaccination</th>
<th>Prevalence</th>
<th>OR</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>3.57% (44/1233)</td>
<td>0.49</td>
<td>&lt;0.001</td>
<td></td>
</tr>
<tr>
<td>✗</td>
<td>6.96% (225/3231)</td>
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</tbody>
</table>

- **858 non-Clinical Staff are recruited**

<table>
<thead>
<tr>
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<th>Vaccination</th>
<th>Prevalence</th>
<th>OR</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>4.67% (10/214)</td>
<td>0.38</td>
<td>0.004</td>
<td></td>
</tr>
<tr>
<td>✗</td>
<td>11.34% (73/644)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Influenza-like Illness*</th>
<th>Vaccination</th>
<th>Prevalence</th>
<th>OR</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>1.14% (14/1233)</td>
<td>0.44</td>
<td>0.004</td>
<td></td>
</tr>
<tr>
<td>✗</td>
<td>2.54% (82/3231)</td>
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<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓</td>
<td>1.40% (3/214)</td>
<td>0.49</td>
<td>0.375</td>
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</tr>
<tr>
<td>✗</td>
<td>2.80% (18/644)</td>
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</tbody>
</table>

# Fever (Temp≥ 38°C) / Sore Throat / Running Nose / Productive Cough

* Fever (Temp≥ 38°C) **AND** either Sore Throat / Productive Cough
Conclusion

Get a Jab

NO Vaccine Protection

~2.1 to 2.2 Times Protection