The 2004-2005 Influenza Season: Influenza Vaccination Practices by Healthcare Facilities in Maryland

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Influenza is a serious disease with significant morbidity and mortality

- 36,000 deaths* (mostly the elderly, chronically ill; some children)
- 200,000 hospitalizations*
- 20 million respiratory illnesses**
- 250 million excess sick days**

PHASE/Capstone Project

- Initial focus of study was to conduct survey of healthcare workers’ (HCW) attitude toward influenza vaccination
- Things don’t always go according to plan
Background: Shortage

- October 5, 2004: Chiron announces shut down of British manufacturing plant of influenza vaccine
- 52 million of 100 million doses ordered by U.S. for 2004-2005 season becomes unavailable just as vaccination season begins
- Scope of study changes
Evolution of a ‘shortage’

- The shortage that ended up not being a shortage!
- January 25, 2005: MD state officials lift all restrictions on influenza vaccinations
- Survey is approved by IRB and ready for mailing shortly thereafter
Methods

- Generated list of all 67 hospitals and 365 long term care facilities (LTCF) in Maryland
- 67 hospitals and 122 LTCFs surveyed
- Mailed a 3-paged, 24-item questionnaire
- Second mailing sent out 4 weeks later
Methods

- All de-identified data was entered into an Access spreadsheet by a single investigator
- STATA 8.0 used to conduct analysis of survey using descriptive statistics
Results

- 189 total surveys mailed out (67 to hospitals, 122 LTCFs)
- 123 completed surveys returned (65% of total); 53 from hospitals (79%), 70 from LTCFs (57%)
Results

- Mean doses of influenza vaccine ordered for 2004-2005 season: 885
  - Hospitals: 1726
  - LTCFs: 267
Question #2: From which company were doses of vaccine ordered? (a) Chiron; (b) SP; (c) Chiron and SP; (d) unsure
Results

- Average number of vaccine doses received by December 1, 2004:
  - 955 (55% of total order) - hospitals
  - 124 (46% of total order) – LTCFs

- 29 % (35/121) of facilities had not received a single dose by Dec. 1
Results

- Intended to offer FluMist: 17/122 (14%)
- Actually ordered FluMist: 7/123 (6%)
- Planning to order FluMist next season: 9/123 (8%) – 11% of decided respondents
Factors That May Have Influenced HCWs Against Getting FluMist

- Contraindication for FluMist
- Uncomfortable with nasal product
- Fear of unknown
- Fear of getting influenza
- Other

% Respondents Agreeing

Results
Results

- ‘Merely offer’ increased from 3 to 10%

- Housekeeping and administrative staff vaccination rates dropped significantly (p=0.035, p=0.068)
Results

Vaccine Distribution Methods

Percent of facilities

- Rolling carts
- Vaccine clinics
- Educational efforts

Hospitals
LTCFs
Results

Date HCWs First Offered Vaccine

Percent of facilities

October
early November
late November
early December
late December

Hospitals
LTCFs
Results

- HCW rates went down from 49% to 42%
- 110/121 (91%) felt they were ultimately able to meet the vaccine demand
- 78/121 (64%) were not any more concerned about an influenza outbreak
- 73/119 (61%) said DHMH was helpful during shortage, 22/119 (18%) said ‘not helpful’, and 24/119 (20%) were unsure
Conclusions

- Those who ordered from only one company this year are significantly more likely to order from 2 (or more) companies next year as opposed to from just one company (p=0.045)
Conclusions

- Maryland HCWs without direct patient contact were significantly less likely to be offered influenza vaccination than they had been prior to the shortage.
Conclusions

- Maryland HCW vaccination rates (still) above national averages.*

*Interventions to increase influenza vaccination of health-care workers – California and Minnesota. MMWR. March 4, 2005; 54(08);196-199.
Conclusions

- Intranasal FluMist still not (widely) accepted in Maryland healthcare facilities
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Questions??

Thank you