

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



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Introduction



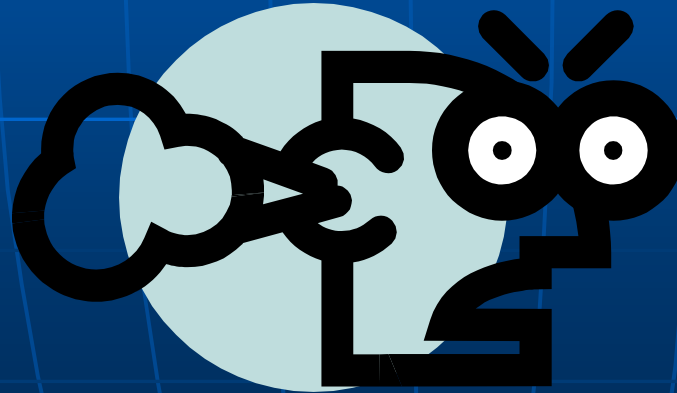
- Influenza is a serious disease with significant morbidity and mortality
 - 36,000 deaths* (mostly the elderly, chronically ill; some children)
 - 200,000 hospitalizations*
 - 20 million respiratory illnesses**
 - 250 million excess sick days**

*Thompson WW, Shay DK, Weintraub E, et al. Mortality associated with influenza and respiratory syncytial virus in the United States. JAMA 2003;289:179--86.

**Wallace, RB. Public Health & Preventive Medicine, 14th Edition, p110.

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



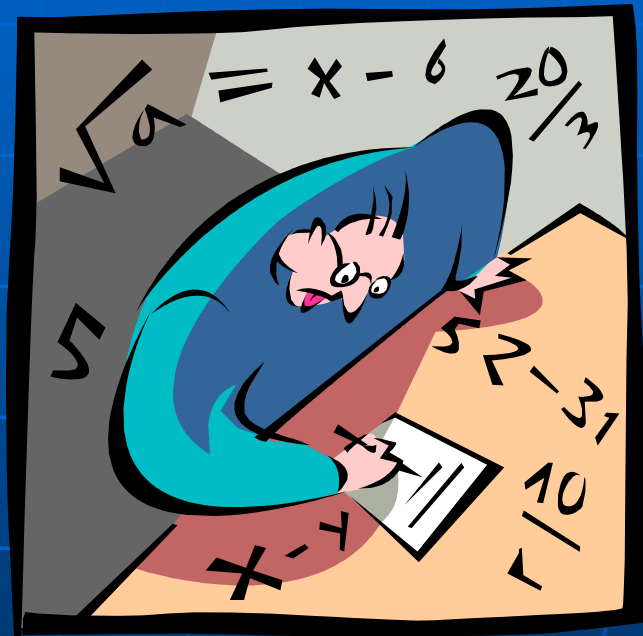
Methods

- 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



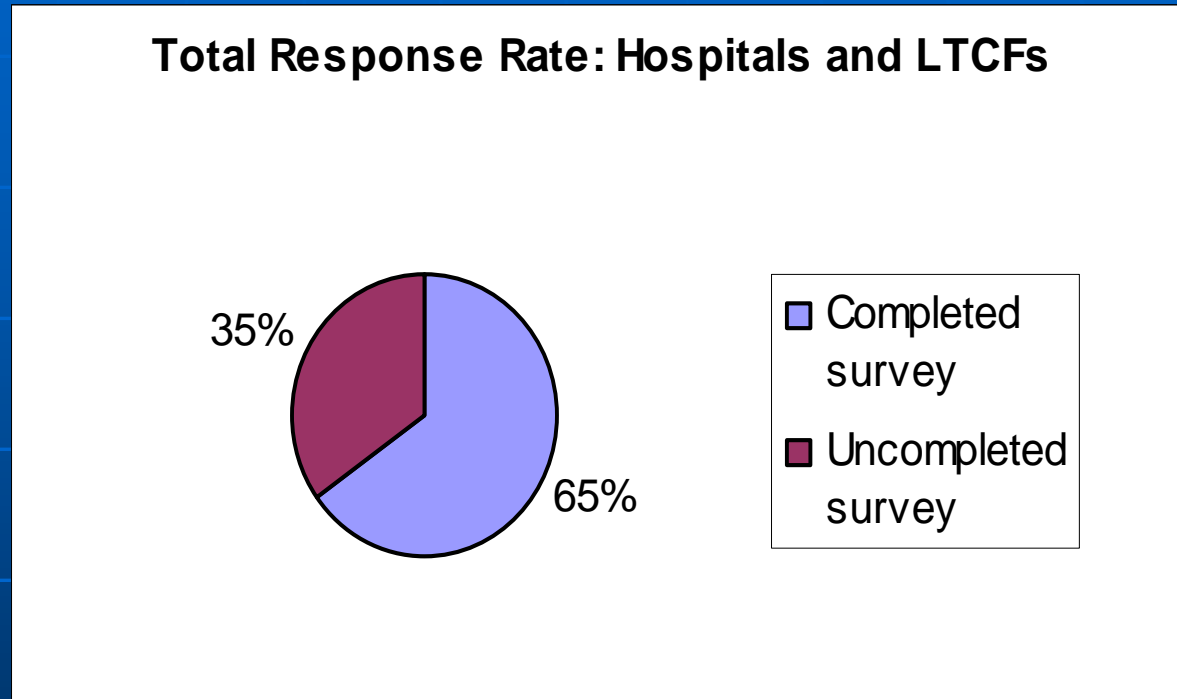
Methods

- 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

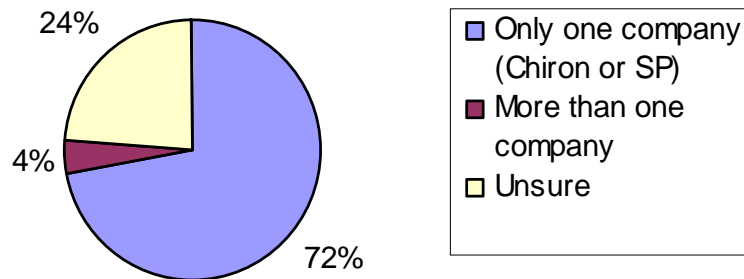
- Mean doses of influenza vaccine ordered for 2004-2005 season: 885

- Hospitals: 1726
- LTCFs: 267



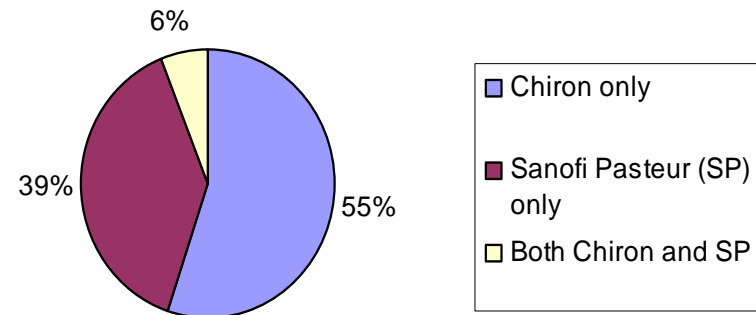
Results

Ordering Practices 2004-2005



Question #2: From which company were doses of vaccine ordered? (a) Chiron; (b) SP; (c) Chiron and SP; (d) unsure

Ordering Practices 2004-2005



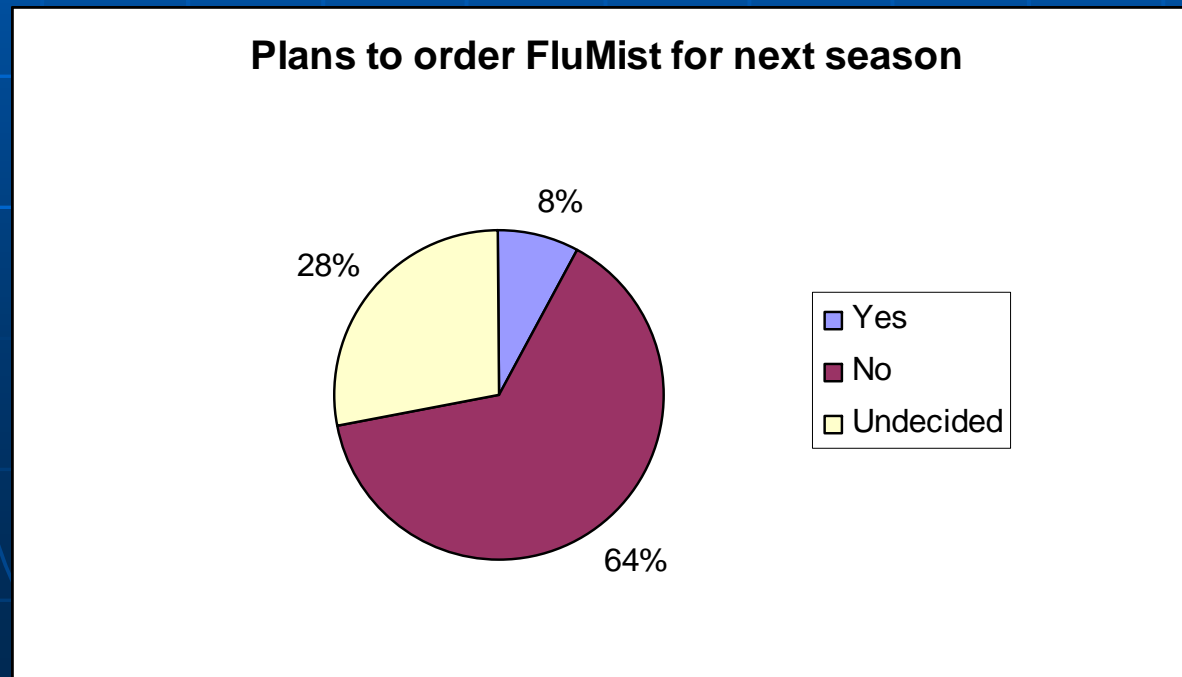
Results

- 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



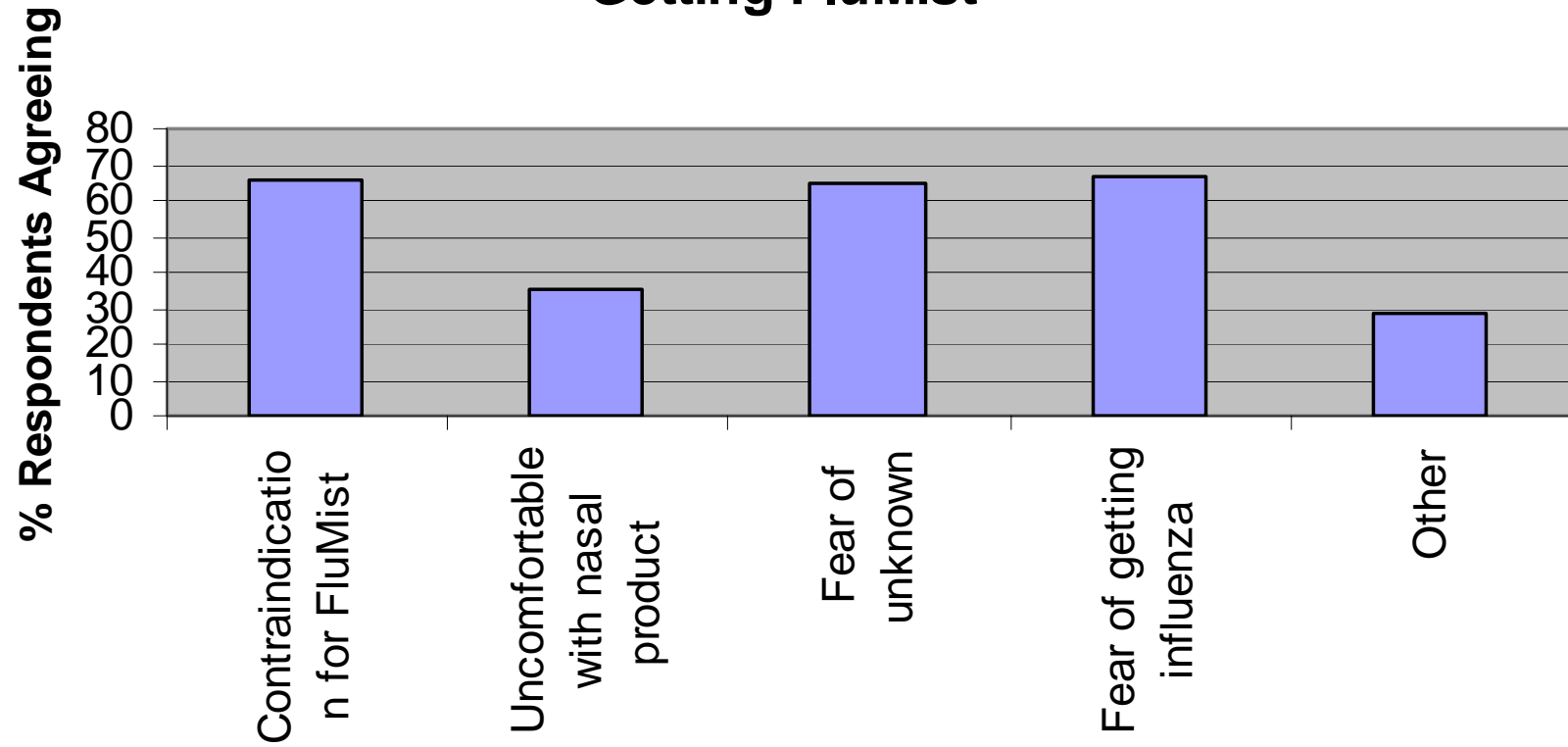
Results

- 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



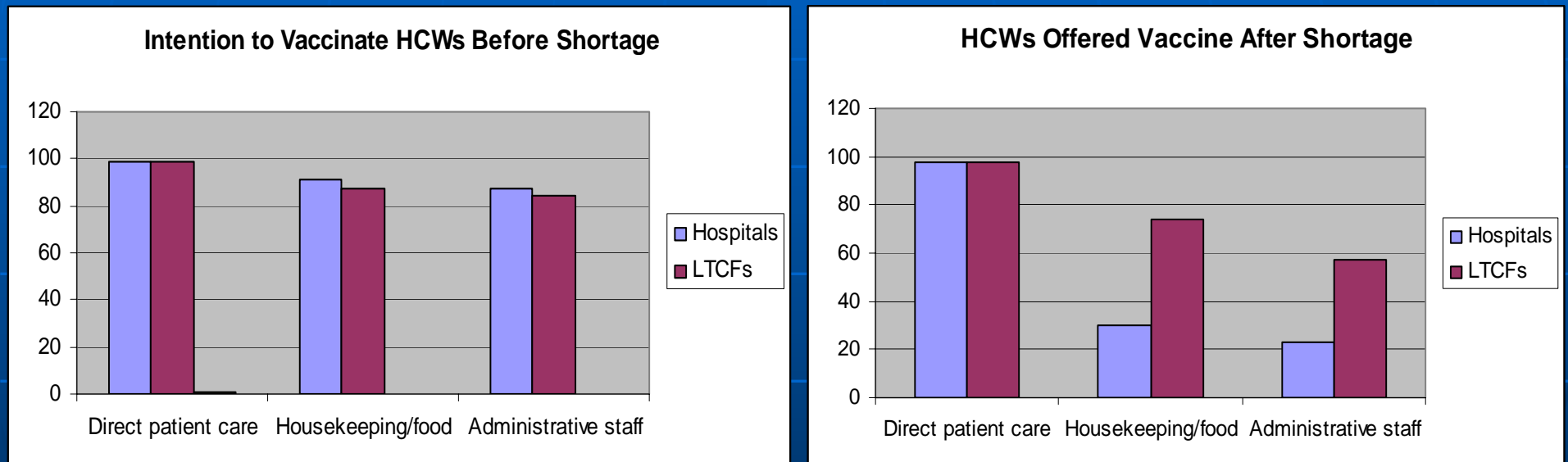
Results

Factors That May Have Influenced HCWs Against Getting FluMist



Results

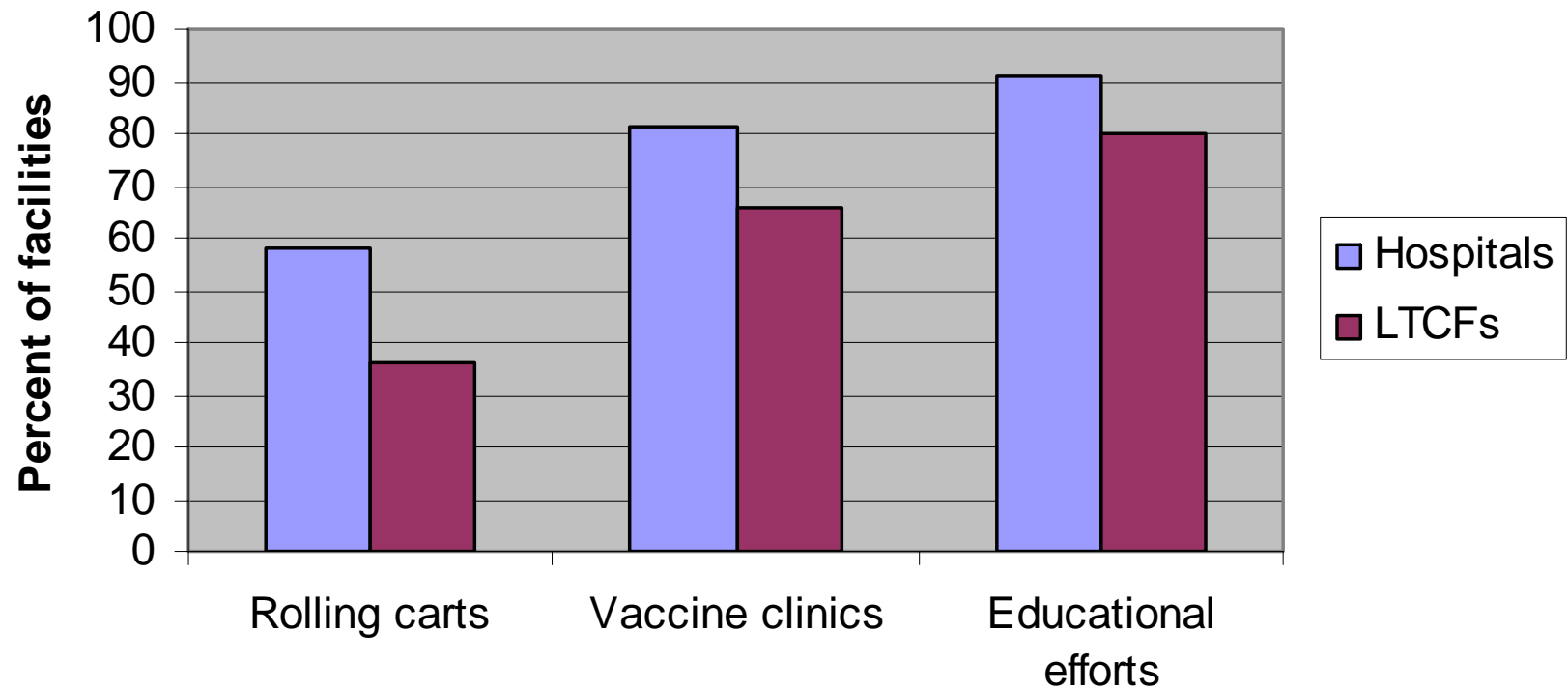
- 'Merely offer' increased from 3 to 10%



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

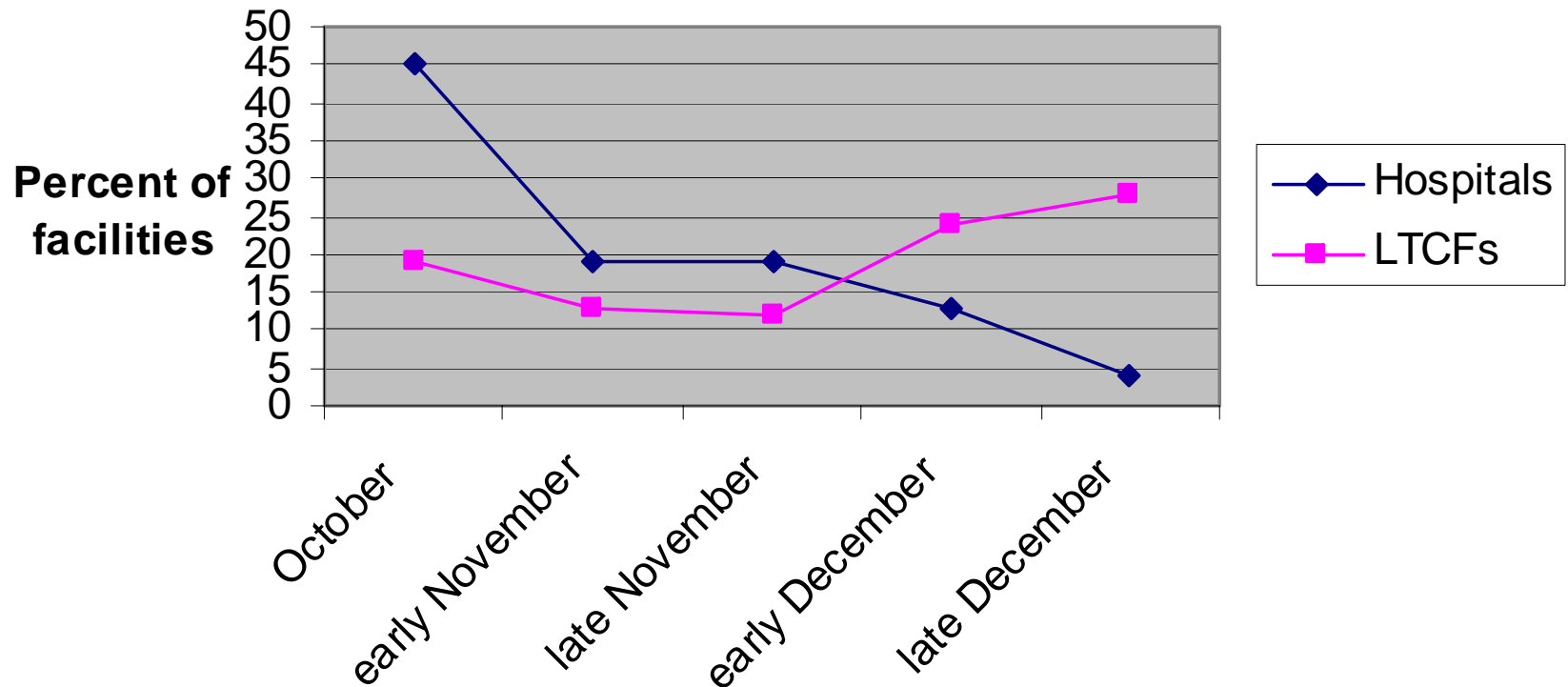
Results

Vaccine Distribution Methods



Results

Date HCWs First Offered Vaccine

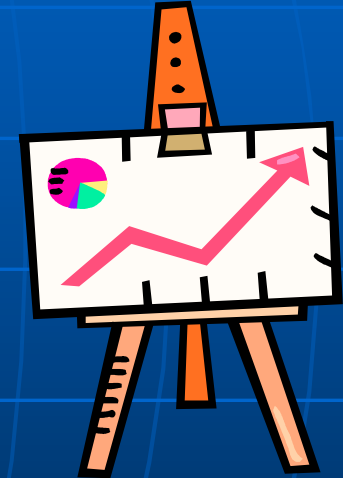


Results

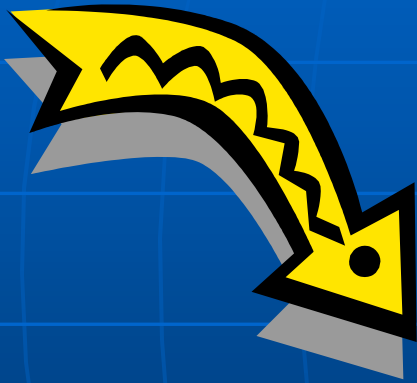
- HCW rates went down from 49% to 42%
- 110/121 (91%) felt they were ultimately able to meet the vaccine demand
- 78/121 (64%) were **not** any more concerned about an influenza outbreak
- 73/119 (61%) said DHMH was helpful during shortage, 22/119 (18%) said 'not helpful', and 24/119 (20%) were unsure

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

Acknowledgments

- Sonhi Kim, MHS
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Questions??

Thank you