

Description of an Influenza Vaccination Campaign and Use of a Randomized Survey to Determine Participation Rates

National Influenza Vaccination Summit
Wednesday, May 19, 2010
Scottsdale, Arizona



Setting

- **Johns Hopkins Hospital and Johns Hopkins University - 40,000 employees**
- **Johns Hopkins Medicine – 11,000 employees**



Campaign Planning

- **Campaign Leadership Group Formed**
- **Nursing Unit Vaccinations**
- **Corridor Vaccinations**
- **Occupational Health Services Clinic Vaccinations**
- **Satellite Vaccinations**



Campaign Planning (Contd.)

- **Identify the Number of Individuals to be Vaccinated**
- **Develop Online Influenza Questionnaire**
- **Develop Secure Confidential Database (Influenza Vaccine Database)**
- **Create HEIC Policy to Require Use of Mask for Non-Vaccinated Individuals**
- **Design an Identifiable Marker for the Employee Name Badge**



Information Technology Solution

- **Badge Reader to Capture Vaccine Specific Data (Linked to HR Database)**



Why A Randomized Survey?

- **Information in HR Database Not Sufficient to Define Patient Contact Status**
- **No Information on Employees Who Receive Vaccination Elsewhere**



Survey Administration

- **10% Random Sample Stratified by:**
 1. **JHH**
 2. **JHSOM**
 3. **Interns, Residents and Fellows**

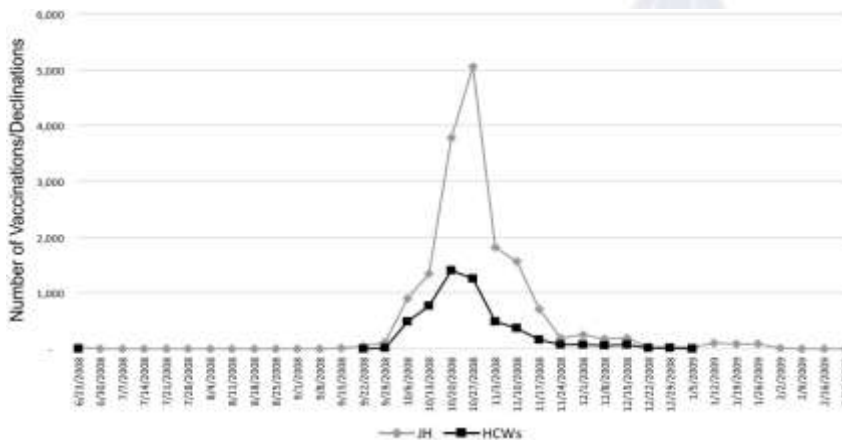


Survey Questionnaire

- **Job Title?**
- **Direct Patient Contact?**
- **Vaccinated or Not Vaccinated?**
- **Participated in JHH Vaccination Program?**
- **Not Vaccinated?**
- **Reasons for Not Receiving Vaccine?**



Number of Vaccinations/Declinations By Week



Summary of Sampling and Survey Response Rate for Johns Hopkins Healthcare Workers

Population	Total # of Persons	# Sampled (%)	Already In File	Need To Survey	Survey Returned	Response Rate %	Newly Identified, Vaccinated Persons
JHH	8,765	880 (10.0)	521	359	345	96.1	93
JHSOM	1,245	128 (10.3)	81	47	43	91.5	25
Other*	753	76 (10.1)	48	28	28	100.0	14
Total	10,763	1,084 (10.1)	650	434	416	95.9	132

Note: Data are no. of persons, unless otherwise indicated.

JHH, Johns Hopkins Hospital; JHSOM, Johns Hopkins School of Medicine

* Interns, residents and clinical fellows



Vaccination Rate and 95% Confident Intervals (CIs) by Population and Direct Patient Contact

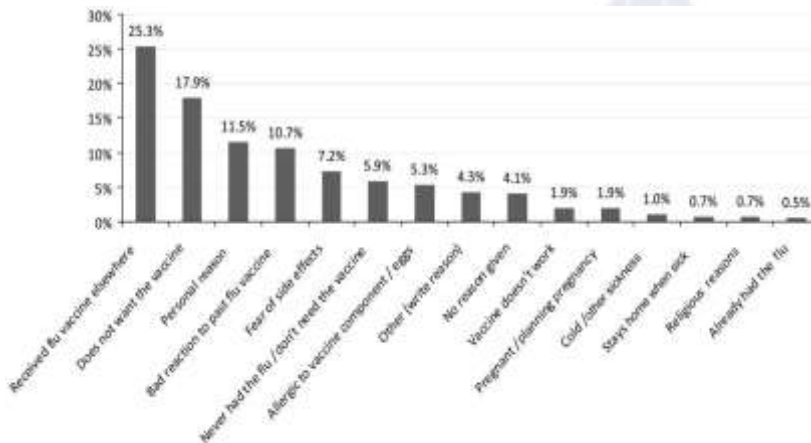
Population	# of Persons						Vaccination Rate % (95% CI)		
	No Direct Patient Contact		Direct Patient Contact		All		# Direct Patient Contact	Direct Patient Contact	All
	Total	Vacc.	Total	Vacc.	Total	Vacc.			
JHH	276	118	579	470	855	588	42.8 (36.9-48.6)	81.2 (78.0-84.4)	68.8 (65.7-71.9)
JHSOM	12	3	116	102	128	105	25.0 (17.1-32.9)	87.9 (82.0-93.9)	82.0 (75.4-88.7)
Other*	9	3	67	59	76	62	33.3 (22.0-44.6)	88.1 (80.3-95.8)	81.6 (72.9-90.3)
Total	297	124	762	631	1,059	755	41.8 (38.2-45.3)	82.8 (80.1-85.5)	71.3 (68.6-74.0)

Note: JHH, Johns Hopkins Hospital;
JHSOM, Johns Hopkins School of Medicine

* Interns, residents and clinical fellows



Reasons for Influenza Vaccination Declination From 880 Persons Who Completed an Online Declination Form Out of 10,763 HCW

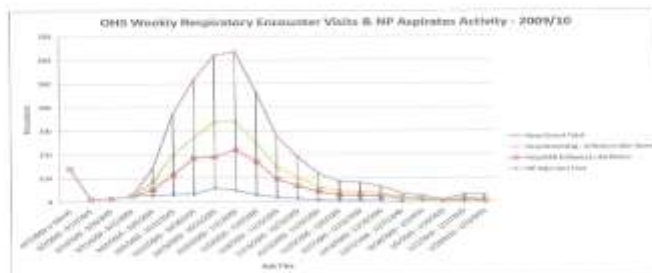


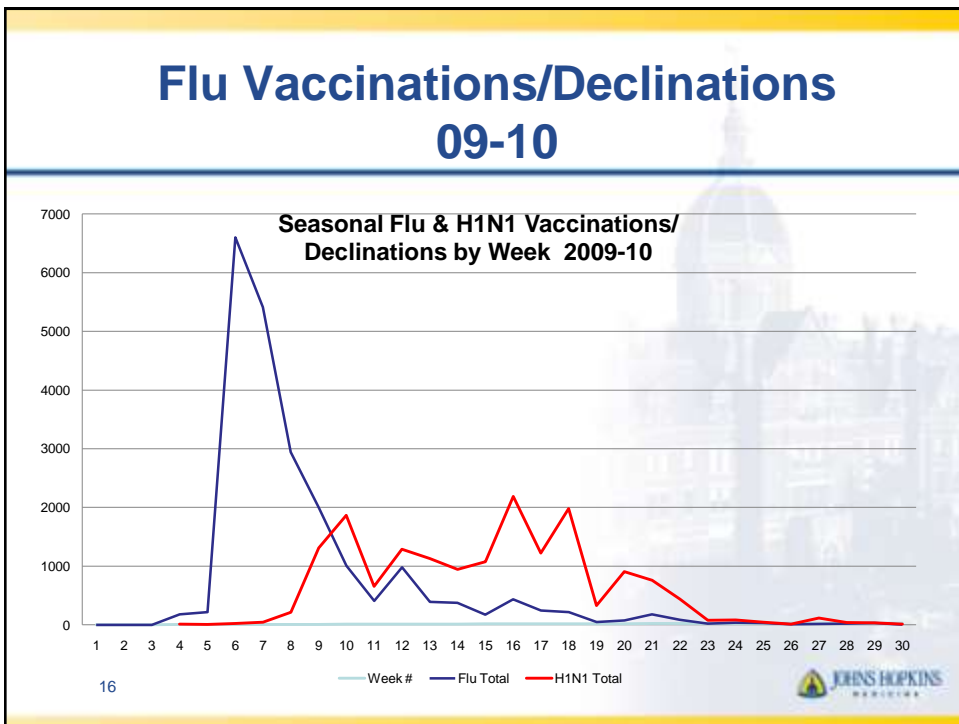
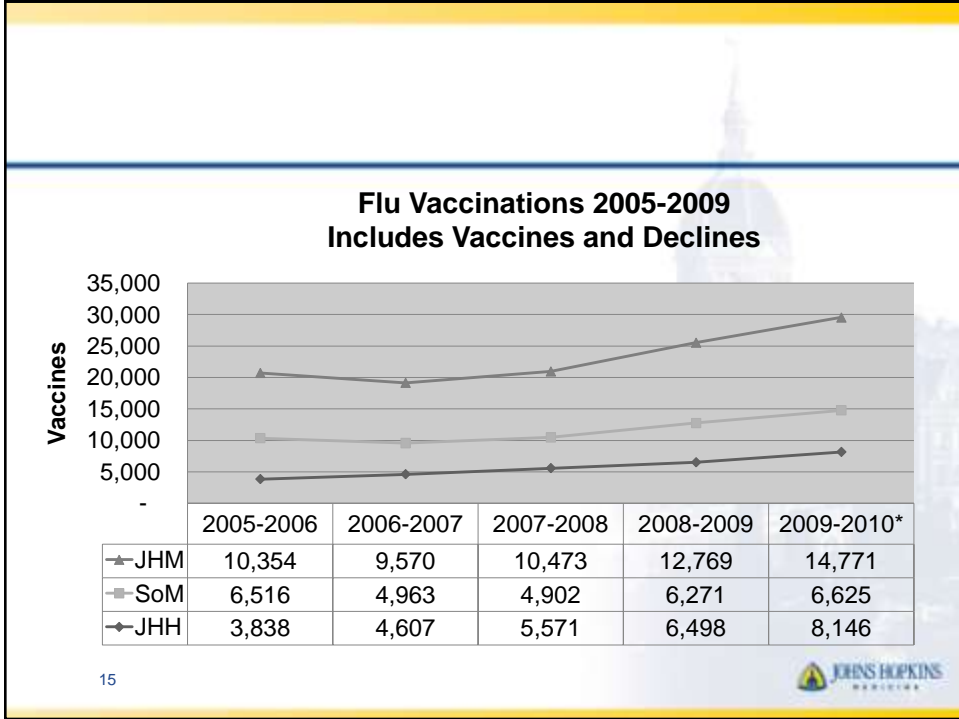
Changes in 2009-2010 Program

- Online Monitoring Report tool for managers
- Badge Readers allow for direct entering from Nursing Unit Champions—H1N1-JHCP
- Advertising
- 2 Clips
- Copy of Vaccination form given to Staff



Occupational Health Services Weekly Respiratory Encounter Visits & NP Aspirates Activity 2009/2010





H1N1

2009/2010 Flu Campaign (H1N1)
3/10/2010 12:53

Summary

Division	Given Vaccinated Data	%	Declined Data	%	Total Data	Total %
Johns Hopkins Hospital	5,955	39.04%	428	51.50%	6,383	39.55%
School of Medicine	5,269	34.54%	128	15.40%	5,397	33.96%
School of Public Health	728	4.77%	2	0.24%	730	4.54%
(blank)	362	2.37%	187	22.60%	549	3.45%
Johns Hopkins Health System	389	2.55%	38	4.57%	427	2.65%
School of Nursing	356	2.33%	4	0.48%	360	2.24%
School of Arts & Sciences	359	2.35%	0	0.00%	359	2.23%
University Administration	316	2.07%	1	0.12%	317	1.97%
Bloomberg School of Public Health	242	1.59%	1	0.12%	243	1.51%
Academic Centers	168	1.10%	0	0.00%	168	1.04%
SALS	153	1.00%	0	0.00%	153	0.96%
Whiting School of Engineering	146	0.96%	0	0.00%	146	0.91%
Johns Hopkins Health Systems	126	0.83%	9	1.08%	135	0.84%
Johns Hopkins Com. Physicians	80	0.52%	26	3.13%	106	0.66%
Homewood Student Affairs	103	0.68%	0	0.00%	103	0.64%
Johns Hopkins Bayview Med Ctr	73	0.48%	0	0.00%	73	0.45%
Libraries	70	0.46%	0	0.00%	70	0.44%
Nitze School of Advanced International Studies	69	0.45%	0	0.00%	69	0.43%
Peabody	58	0.38%	0	0.00%	58	0.36%
Johns Hopkins Health Care	44	0.29%	2	0.24%	46	0.29%
Carey Business School	43	0.28%	0	0.00%	43	0.27%
School of Education	32	0.21%	0	0.00%	32	0.20%
Howard Hughes Medical Institution	29	0.19%	0	0.00%	29	0.18%
Johns Hopkins Pharmacup	27	0.18%	0	0.00%	27	0.17%
Krieger School of Arts and Sciences	18	0.12%	3	0.36%	21	0.13%
Kennedy Krieger Institute	13	0.08%	1	0.12%	14	0.08%
JHEHC	11	0.07%	1	0.12%	12	0.07%
Advanced Academic Programs - AS	3	0.02%	0	0.00%	3	0.02%
Division name not avail	2	0.01%	0	0.00%	2	0.01%
Engineering and Applied Science Programs for Professionals	2	0.01%	0	0.00%	2	0.01%
INS	1	0.01%	0	0.00%	1	0.01%
Peabody Institute	1	0.01%	0	0.00%	1	0.01%
Johns Hopkins Home Care Group	1	0.01%	0	0.00%	1	0.01%
Bloomberg Sch of Public Health	1	0.01%	0	0.00%	1	0.01%
Nitze School of Advanced International Studies - Bologna	1	0.01%	0	0.00%	1	0.01%
Hopkins Hillcl	1	0.01%	0	0.00%	1	0.01%
Johns Hopkins Home Hlth Svcs	1	0.01%	0	0.00%	1	0.01%
Grand Total	15,253	100.00%	631	100.00%	15,884	100.00%

Flu

2009/2010 Flu Campaign (seasonal flu)
3/10/2010 12:55

Summary

Division	Given Vaccinated Data	%	Declined Data	%	Total Data	Total %
Johns Hopkins Hospital	7,711	36.56%	419	46.61%	8,130	36.97%
School of Medicine	6,449	30.57%	170	19.91%	6,619	30.09%
(blank)	361	4.56%	178	19.80%	1,139	5.16%
School of Public Health	1,000	4.74%	9	1.00%	1,009	4.59%
Johns Hopkins Health System	655	3.11%	40	4.45%	695	3.16%
University Administration	619	2.92%	1	0.11%	620	2.82%
School of Nursing	558	2.55%	12	1.33%	570	2.59%
Bloomberg School of Public Health	563	2.67%	6	0.67%	569	2.59%
Johns Hopkins Com. Physicians	502	2.36%	31	3.45%	533	2.42%
School of Arts & Sciences	367	1.69%	0	0.00%	367	1.66%
Johns Hopkins Health Systems	230	1.09%	18	2.00%	248	1.13%
Academic Centers	246	1.17%	1	0.11%	247	1.12%
Johns Hopkins Health Care	223	1.06%	0	0.00%	223	1.01%
Whiting School of Engineering	194	0.92%	1	0.11%	195	0.89%
Homewood Student Affairs	134	0.64%	0	0.00%	134	0.61%
SALS	95	0.45%	0	0.00%	95	0.43%
School of Education	84	0.40%	0	0.00%	84	0.38%
Carey Business School	84	0.40%	0	0.00%	84	0.38%
Libraries	70	0.33%	0	0.00%	70	0.32%
Peabody	64	0.30%	0	0.00%	64	0.29%
Krieger School of Arts and Sciences	57	0.27%	2	0.22%	59	0.27%
Johns Hopkins Pharmacup	51	0.24%	0	0.00%	51	0.23%
Howard Hughes Medical Institution	38	0.18%	0	0.00%	38	0.17%
Kennedy Krieger Institute	22	0.10%	2	0.22%	24	0.11%
Johns Hopkins Bayview Med Ctr	23	0.11%	0	0.00%	23	0.10%
Nitze School of Advanced Internation	17	0.08%	0	0.00%	17	0.08%
JHEHC	16	0.08%	1	0.11%	17	0.08%
Advanced Academic Programs - AS	11	0.05%	0	0.00%	11	0.05%
Johns Hopkins Home Care Group	7	0.03%	0	0.00%	7	0.03%
Division name not avail	6	0.03%	0	0.00%	6	0.03%
Peabody Institute	4	0.02%	0	0.00%	4	0.02%
Johns Hopkins Home Hlth Svcs	2	0.01%	0	0.00%	2	0.01%
Engineering and Applied Science Pr	2	0.01%	0	0.00%	2	0.01%
Hopkins Hillcl	2	0.01%	0	0.00%	2	0.01%
Independent College Fund of Marvta	1	0.00%	0	0.00%	1	0.00%
Johns Hopkins Home Hlth Svcs	1	0.00%	0	0.00%	1	0.00%
SPSBE	1	0.00%	0	0.00%	1	0.00%
NS	1	0.00%	0	0.00%	1	0.00%
APL	1	0.00%	0	0.00%	1	0.00%
Carnegie Institution of Washington	1	0.00%	0	0.00%	1	0.00%
Peabody Prep NonDegree	1	0.00%	0	0.00%	1	0.00%
Grand Total	21,093	100.00%	899	100.00%	21,992	100.00%

Decline Reasons-2009-2010

Decline Reasons	H1N1 %	Flu %
Received flu vaccine elsewhere	18%	42%
Does not want the vaccine	17%	11%
Fear of side effects	15%	6%
Personal Reason	14%	8%
No reason given	13%	10%
Other (write reason)	5%	2%
Bad reaction to past flu vaccine	4%	8%
Already had the Flu	4%	1%
Allergic to vaccine component / eggs	3%	4%
Never had the flu / Don't need the vaccine	3%	4%
Stays Home When Sick	2%	1%
Religious Reasons	1%	1%
Fear of needles	1%	0%
Pregnant / Planning Pregnancy	1%	0%
Cold / Other sickness	0%	1%
Vaccine doesn't work	0%	0%
Prefers Flu Mist	0%	0%
None Selected	0%	0%
Grand Total	100.00%	100.00%

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Future Plans

- Follow-up Validation Survey
- Education
- Mandatory Vaccination ?!!!

