

YOUR FLU SHOT COUNTS: GET ONE

TENSAE ANDARGACHEW (ME '15)

On Monday, November 12, 2012, the Cooper Union offered students, faculty, and a staff a free flu vaccination, attempting to entice the community with a chance at winning an Amazon gift card and the opportunity to throw a pie at Dean Wolf's face. Although the latter was only allowed should 60% of the Cooper population get vaccinated, which we failed to accomplish, an estimated 230 people (roughly 25% of the school) got the flu shot that day. An additional 70 people had also received a flu shot, either from Cooper's October flu shot program, or from CVS, Walgreens, or their family doctor, meaning that for all intents and purposes approximately 30% of the school has received the 2012 vaccine.

What does this mean for the Cooper community? For starters, almost 1 in 3 people we meet in the halls, on the staircases or in the Foundation Building will have been vaccinated. So suppose there was an outbreak of the flu in the school. Dean Wolf provided a computer simulation, written by Shane Killian and modified by Robert Webb, whose work has been featured in PC Plus Magazine, written to mathematically model what might happen in the case of an outbreak. I ran a simulation with 30% of the population inoculated, to see a possible outcome:

“For all intents and purposes, approximately 30% of the school has received the 2012 vaccine”

At the end of this simulation, 99.63% of the people who were not vaccinated got the flu, while 50.58% of the people who were inoculated got the flu. Of course, this is a very general stochastic mathematical model, which may not be the most accurate model of what might happen to our institution, should there be an outbreak. The model assumes a population of 800 while our population is closer to 1100. This model also seems to assume complete and total interaction of the population, which is not necessarily what happens to the extent the model presumes.

Moreover, the model also seems to assume that the people who are vaccinated are randomly dispersed throughout the population. However, the data suggests otherwise – 22% of the students of the School of

Engineering received the vaccination, while 18% of the students from the School of Art and 20% from the School of Architecture did.

This model may well be a best case scenario for the school, which should be a very sobering fact. Had 80% been inoculated, we would have reached “herd inoculation” which would have protected almost all of us.

However, there is one thing that this simulation does tell us which is unfortunately even more dour – the flu virus is an incredibly contagious disease.

This year's vaccination tackles three different strains of the virus – one influenza A H3N2 virus, one influenza A H1N1 virus (swine flu) and one influenza B virus.

“This year's vaccination tackles three different strains of the virus - A H3N2, A H1N1 and B”

All three are particularly nasty and someone getting one of these during the school year, introducing it into the school would not bode well for many of us. Many people don't appreciate the difference between the common cold and the flu. Flu symptoms are often much worse, and can last for up to two weeks.

There is however at least one good thing that did come of this: those who were vaccinated have a reduced chance of getting the flu, as will the people they associated with, according to some studies. Also, if you are vaccinated, and still get the flu, your symptoms are likely to be less severe. Still, despite the extended hours for getting a flu shot and the relative ease of getting a shot – at best roughly 30% of the school is vaccinated. What might be attributed to the low turnout?

“Dean Wolf believes that in part, the low turnout was due to some misconceptions that students have about the vaccination itself”

One possibility is that the hours did not work for all students. And while it is true that the School of Art, School of Engineering and School of Architecture have different hours, it seems unlikely that ten minutes could not be spared by more people. Dean Wolf

believes that, in part, the low turnout was due to some misconceptions that students have about the vaccination itself.

As he went around the school on Monday night, advocating all get the flu shot, he had encountered some students who believed that because they ate healthy and exercised regularly, the flu shot was not necessary. Some believed myths about the flu shot – such as that it gave Alzheimer's or autism. None of that is supported by medical science, for the record.

“Had 80% been inoculated, we would have reached ‘herd inoculate’ which would have protected almost all of us”

There is another possibility, and it is the case with so many other times in life – people figured that “everyone else will do what needs to be done (get a flu shot), so I don't need to. But failing to get a flu shot because you believe others will is free riding on the sanitary responsibility of others.”

“The safest thing to do is to get the shot”

The numbers from this round of flu vaccinations at Cooper do not indicate that to be a safe bet at all. The safest, and wisest, thing to do is to get the shot because you will be protecting your health and the health of others. ♦

CRYPTOQUOTE

MARCUS MICHELEN (BSE '14)

A Cryptoquote is an encoded quote. It is encoded such that each and every occurrence of a letter is substituted with a different letter of the alphabet. Using clues such as frequency of occurrence and placement, the original quote can be found. For instance, the word XBDIKCXXBZ could be deciphered to reveal the word LONGFELLOW.

“CAL EY ECCXPSAH, LXS OGQAIYG
 DG AHXLG ACXLN QPGASIPGY DAY AL
 ELGRDAIYSEOHG ZXEQG, OIS OGQAIYG DG DAY
 A YXIH, A YJEPES QAJAOHG XB QXCJAYYEXL
 ALW YAQPEBEQG ALW GLWIPALQG.”

- MEHHEAC BAIHVLGP

Last issue's solution:

“PLEASE DON'T CONFRONT ME WITH MY FAILURES. I HAD NOT FORGOTTEN THEM” - JACKSON BROWNE

KENKEN

MARCUS MICHELEN (BSE '14)

KenKen is a Japanese paper puzzle by Tetsuya Miyamoto much like Sudoku, only it involves both math and logic. It roughly translates to “cleverness-cleverness.”

Instructions: Like Sudoku, each row and column must contain the numbers from 1 to 5. The number in the upper-left corner of the bolded shape made up of squares is the number you need to get by using the operation next to the number. For example, the “2-” rectangle in the bottom right corner can be filled in with a 5,3; or a 4,2; or 3,1

This puzzle contains only one solution, which will be released in the next issue.

The solution to the last Ken Ken is produced below:

1	2	5	4	3
2	4	3	1	5
4	3	1	5	2
5	1	2	3	4
3	5	4	2	1

12+		6+	10×	
	1-			1-
3-		24×		
	100×			2-
4×				

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2012 ELECTION SUMMARY

MATTHEW LEE (ME '15)

Tuesday, November 6th marked the re-election of Barack Obama as President of the United States. President Obama won the election with 332 electoral votes to Mitt Romney's 206, a notable drop from then Senator Obama's landslide victory over Senator McCain of 359 over 179. In addition, the 2012 popular vote was won by only about 3,000,000 votes, where the 2008 election carried Obama by more than 10,000,000 votes.

This year Obama won more votes from non-white voters, young voters, women, and those in big cities. Romney won more votes from college graduates and those with higher incomes.

Republicans lost 2 seats in the Senate, which were replaced by 1 Democratic and 1 Independent Senator. In the House of Representatives, Republicans lost 9 seats, Democrats gained 2, and the remaining 7 Representatives are of neither political party.

This election had some other notable results. This election marks the first time since 1820 that three consecutive incumbent presidents have been re-elected. Due to Hurricane Sandy, New Jersey voters were permitted to email their votes in, the first time in history this has ever occurred. Two astronauts voted from the International Space Station. The first Asian-American Woman and the first Buddhist Senator was elected in Hawaii, Rep. Mazie Hirono (D-Hawaii). Mrs. Hirono was a member of the House of Representatives, and her successful election gave way to the election of the first Hindu Representative, Tulsi Gabbard.

“This election marks the first time since 1820 that three consecutive incumbent presidents have been re-elected”

For the first time, marijuana was legalized for recreational use in Colorado and Washington. Medical Marijuana is currently legal in 18 states. Same-sex marriage was legalized in Maryland,

Maine, and Washington. These three states are the first to legalize same-sex marriage by popular vote, rather than by legislation or litigation. Minnesota became the first state to reject a state-wide constitutional ban against same-sex marriage. 38 states currently have same-sex marriage bans, 9 states and the District of Columbia have legalized same-sex marriage, and 3 have no laws for or against same-sex marriage. ◇

COOPER'S SANDY RELIEF EFFORTS

CAROLINE YU (EE '15)

Hurricane Sandy has been the talk of 2012 fall season. Sandy brought many inches of rain and, in some areas, snow, but was most destructive in coastal regions where there were storm surges 9-12 feet above normal. From stories of despair to inspiring stories of community building, Sandy has helped many people identify what things are most important in their lives.

To help the New York City residents who need the most aid, students, faculty, and staff at Cooper have gone above and beyond in efforts to restore communities. Below are some of the many ways Cooper's various clubs and individuals took part in Sandy relief efforts.

The Society of Women Engineers, Intervarsity Christian Fellowship, and Hillel Cooper collected donations for New York City Urban Project's Feed500 relief effort.

“Between suggested donations and auctioned off pieces, Origami Club made a little less than \$2000”

Students prepared and distributed necessities to affected areas, shelters, and relief organizations. Not only was this an inspirational gathering of volunteers, individuals connected with other individuals affected by the storm who had the same strong spirit and motivation to rebuild and recover quickly.

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For an entire week, the Origami Club made everyone getting onto the elevators or going up the Grand Staircase stop in awe of origami creations. Suggested donations and auctioned off pieces raised a little less than \$2000.

Zeta Psi organized a pie throwing contest to raise money. A food and clothes drive was also organized where all proceeds were donated to the Red Cross.

Intervarsity organized a sock drive to collect socks for those still in the dark or without shelter.

School wide events included a relief breakfast where Zeta Psi organized a pancake breakfast that lead everyone to Frankie's and a benefit concert where the Coopertones, CooperNova, Sons of Pitches, President Bharucha and other Cooper musicians performed. ◇

A NOTE ABOUT OUR DISTRIBUTION

MARCUS MICHELEN (BSE '14)

In the past, the Pioneer has distributed individual issues to virtually every member of the Cooper community. We have found that many of these issues are not read, resulting in a very large waste of paper.

As a result, we will no longer distribute the Pioneer to many places we distributed last year. We will put issues in the following places:

- Pioneer Receptacles on the first and fifth floor of the New Academic Building as well as the receptacle on the first floor of the foundation building
- The Dean of Engineering's office (by request)
- The Engineering Adjunct office (by request)
- The Writing Center
- The Humanities Office
- The Library
- Each Cooper related floor of 30 Cooper Square

If there is a place that you would like us to distribute to, please email us at cooperpioneer@gmail.com and we will add it to our distribution list.

In addition, our website, pioneer.cooper.edu, has been updated and will continue to be updated to maximize online readability and increase access to the Pioneer.

Peter Cooper ON THE FUTURE



EPISODE TWO

COMIC: PETER COOPER IN THE FUTURE

BY JAKE POTTER (ME '16)

