



# Flu Near You: A local surveillance system.

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City of Houston

1. Surveillance with small sample sizes
2. Crowd-sourced data
3. Validating the data against national standards
4. Applying it to local data

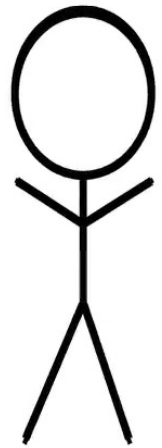
Crowd-sourced tool



HOUSTON HEALTH  
DEPARTMENT

flu   
near you

# Crowd-sourced tool



+

flu  
near you



=

**STAND BACK**



I'M GOING TO TRY  
**SCIENCE**

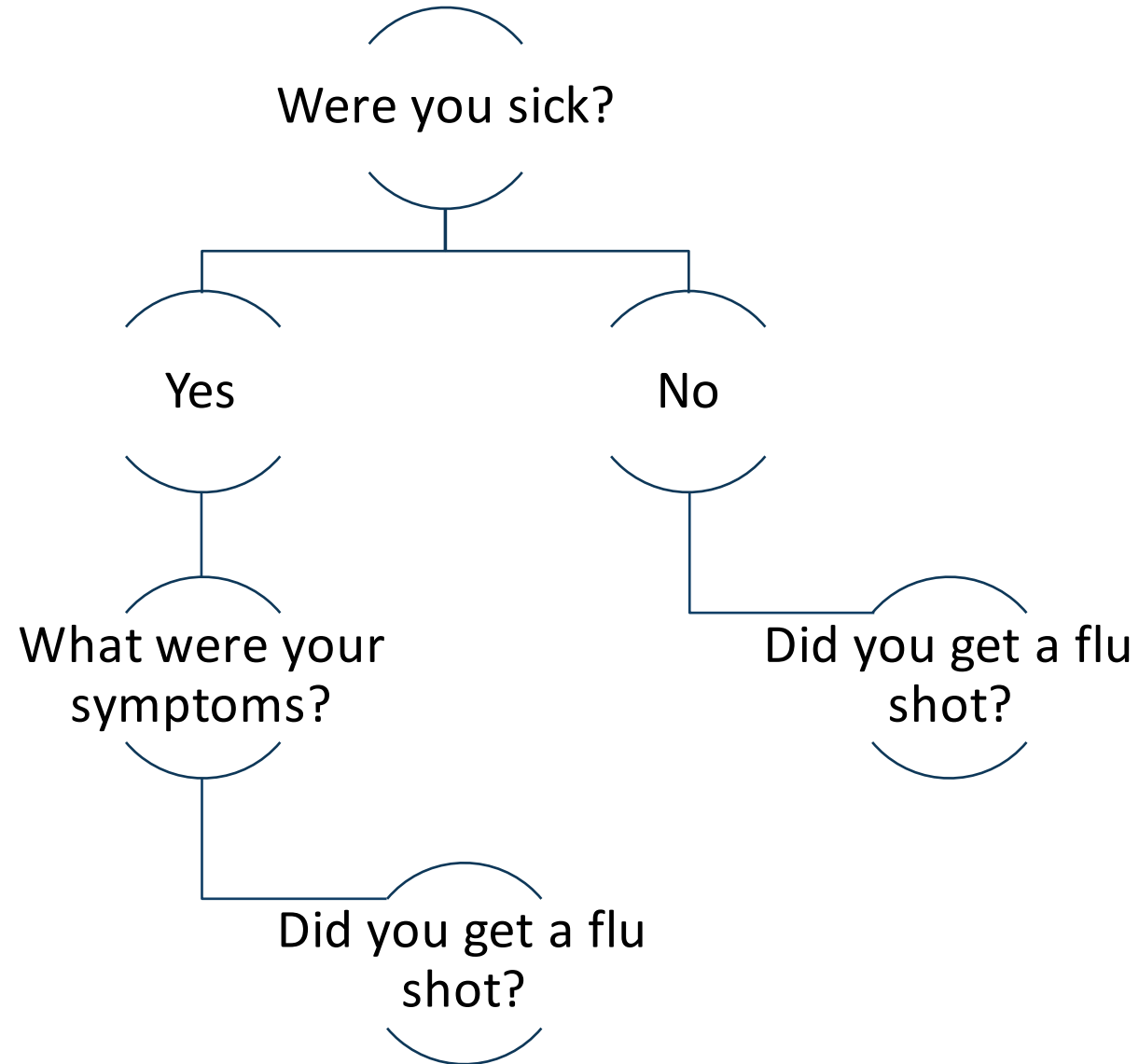
# Crowd-sourced tool



# Crowd-sourced tool



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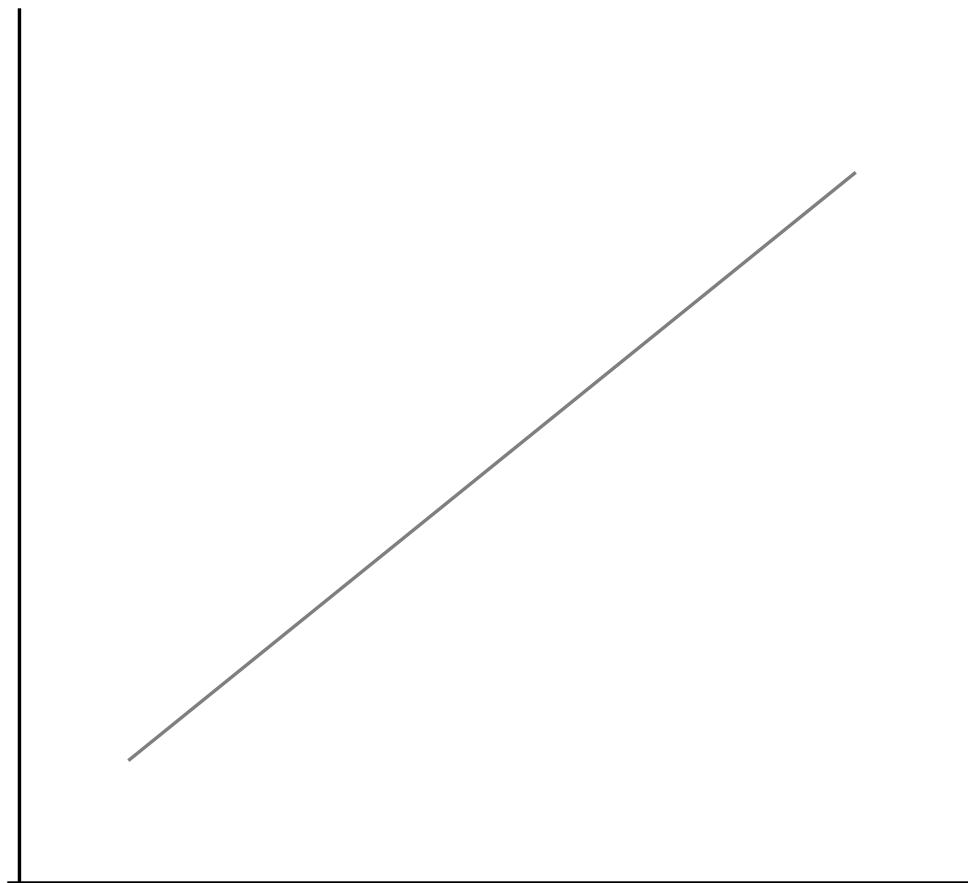


# Issue of sample size



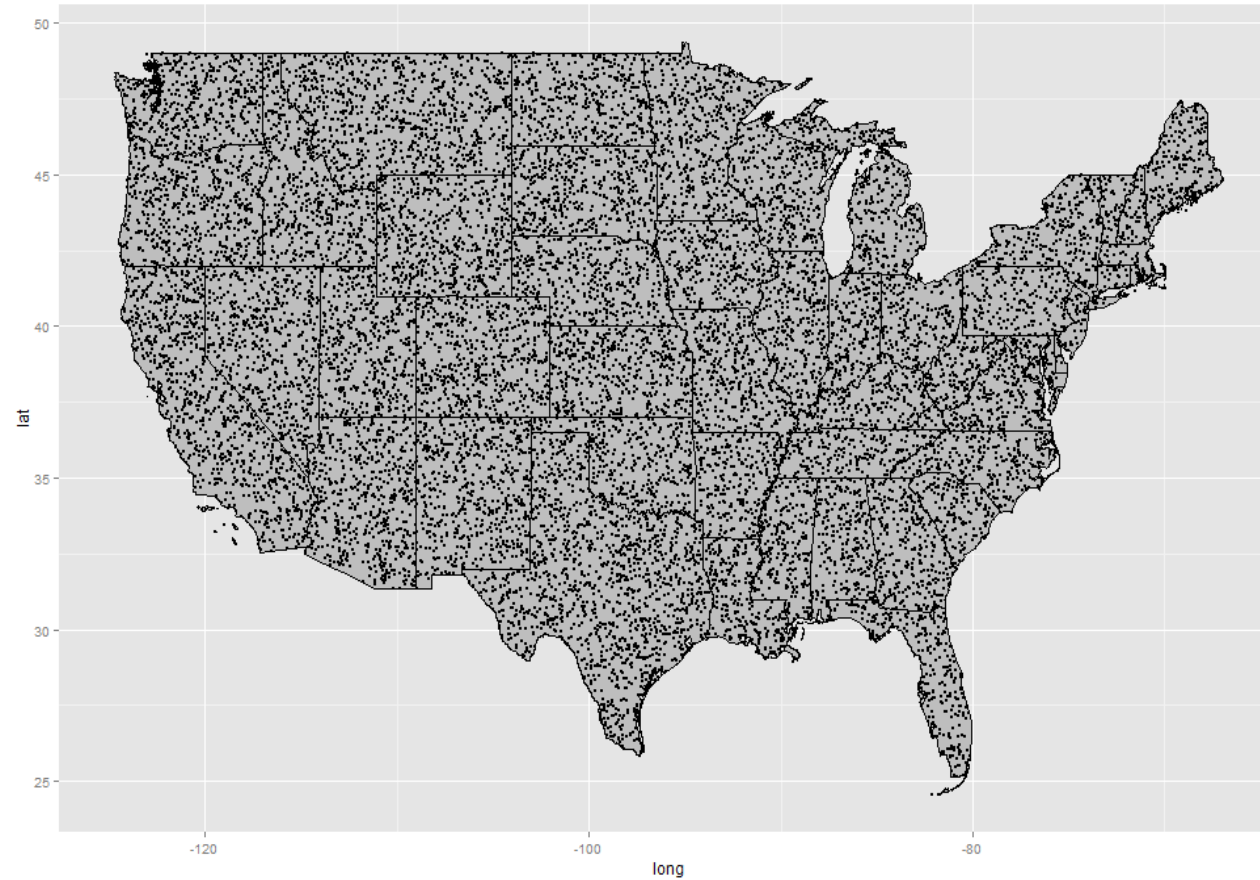
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**Signal**



**Sample size**

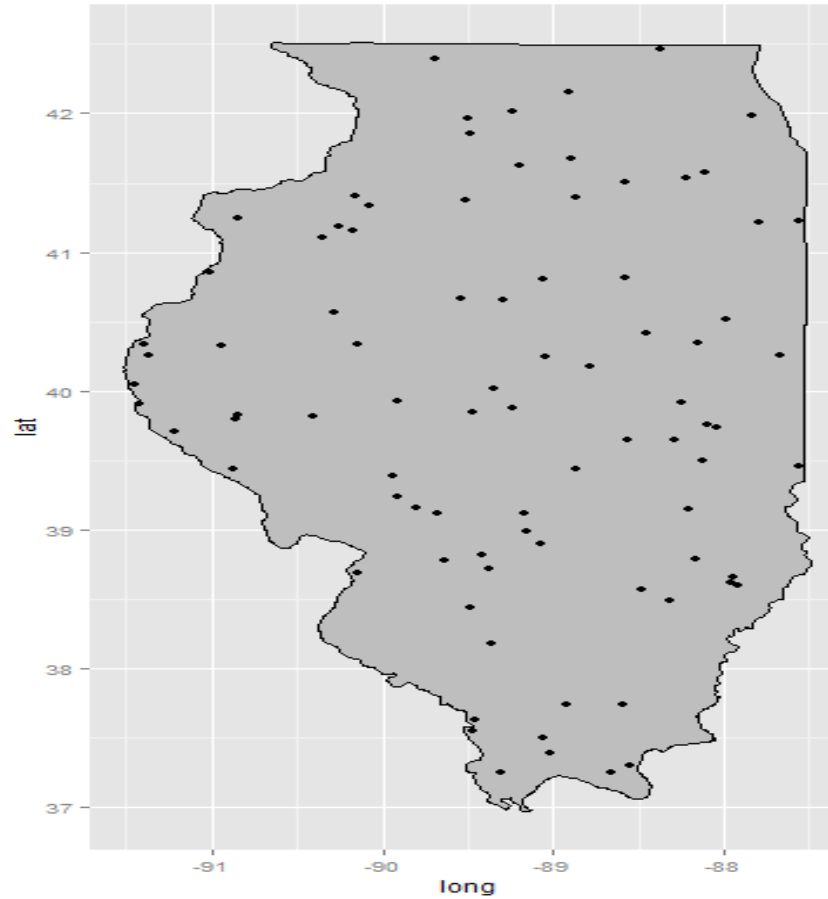
# Issue of sample size



$N \sim 16,000$

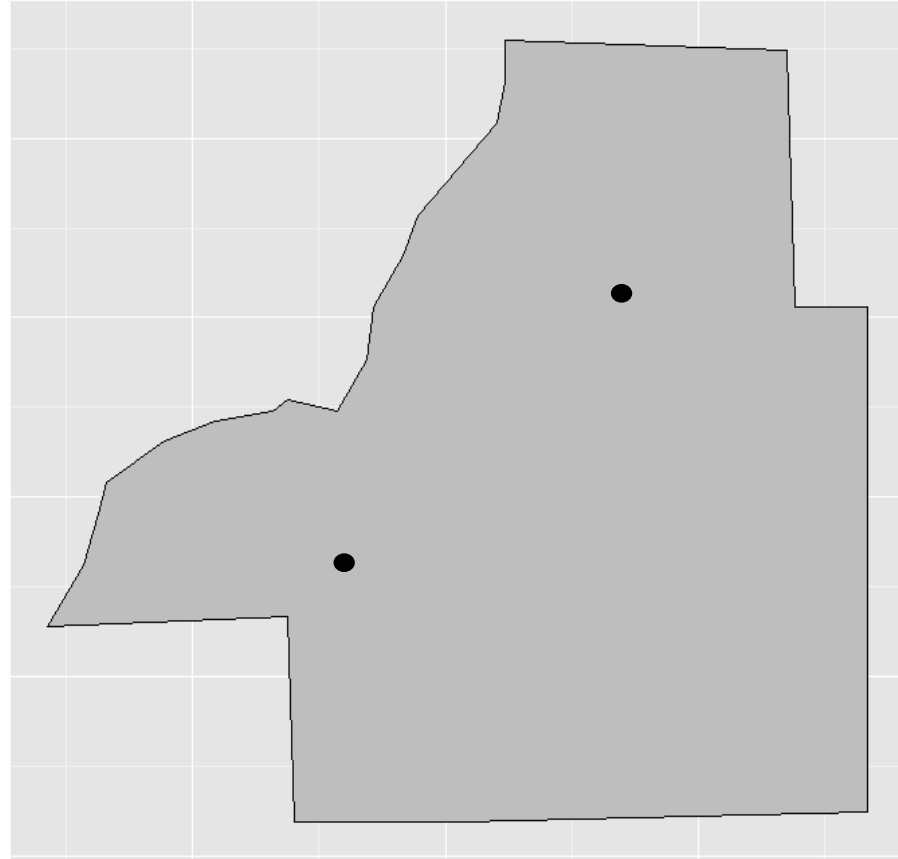


# Issue of sample size



$N \sim 610$

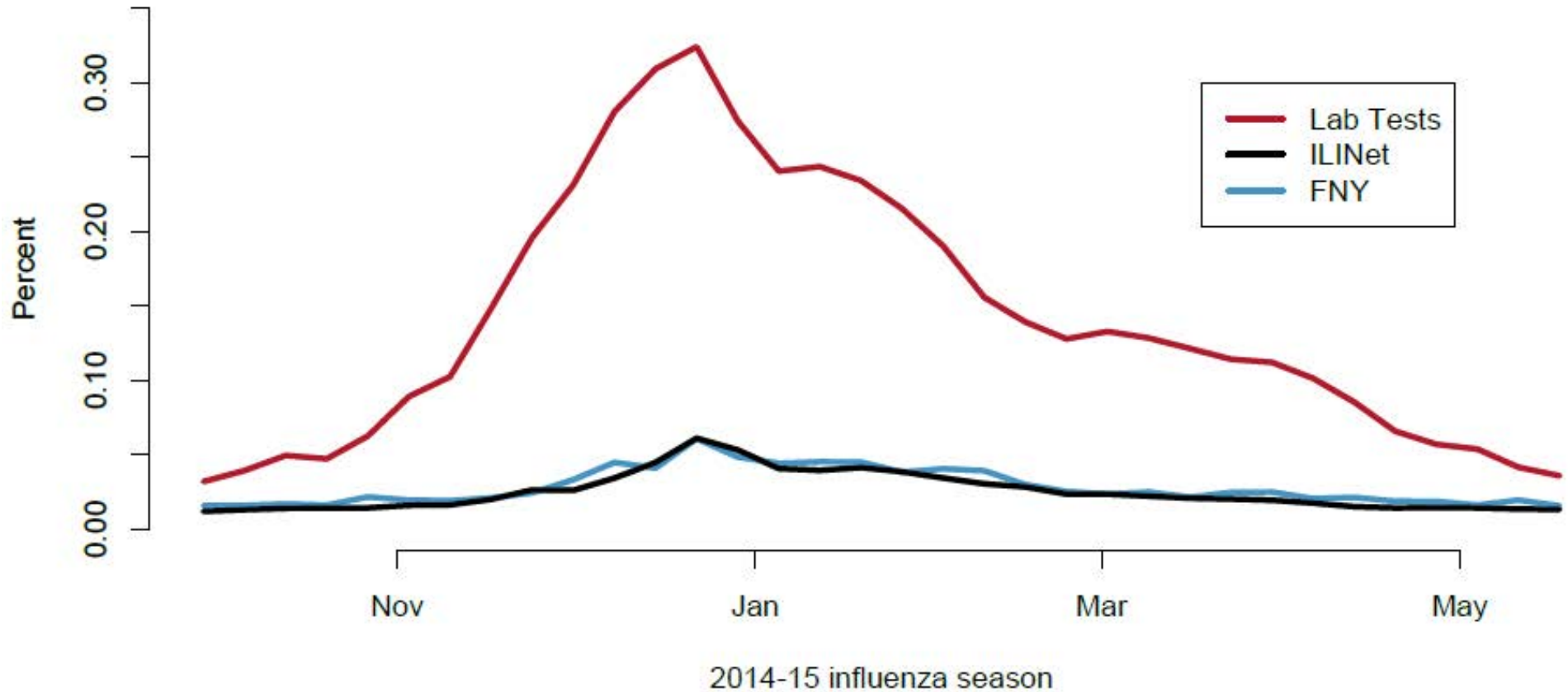
# Issue of sample size



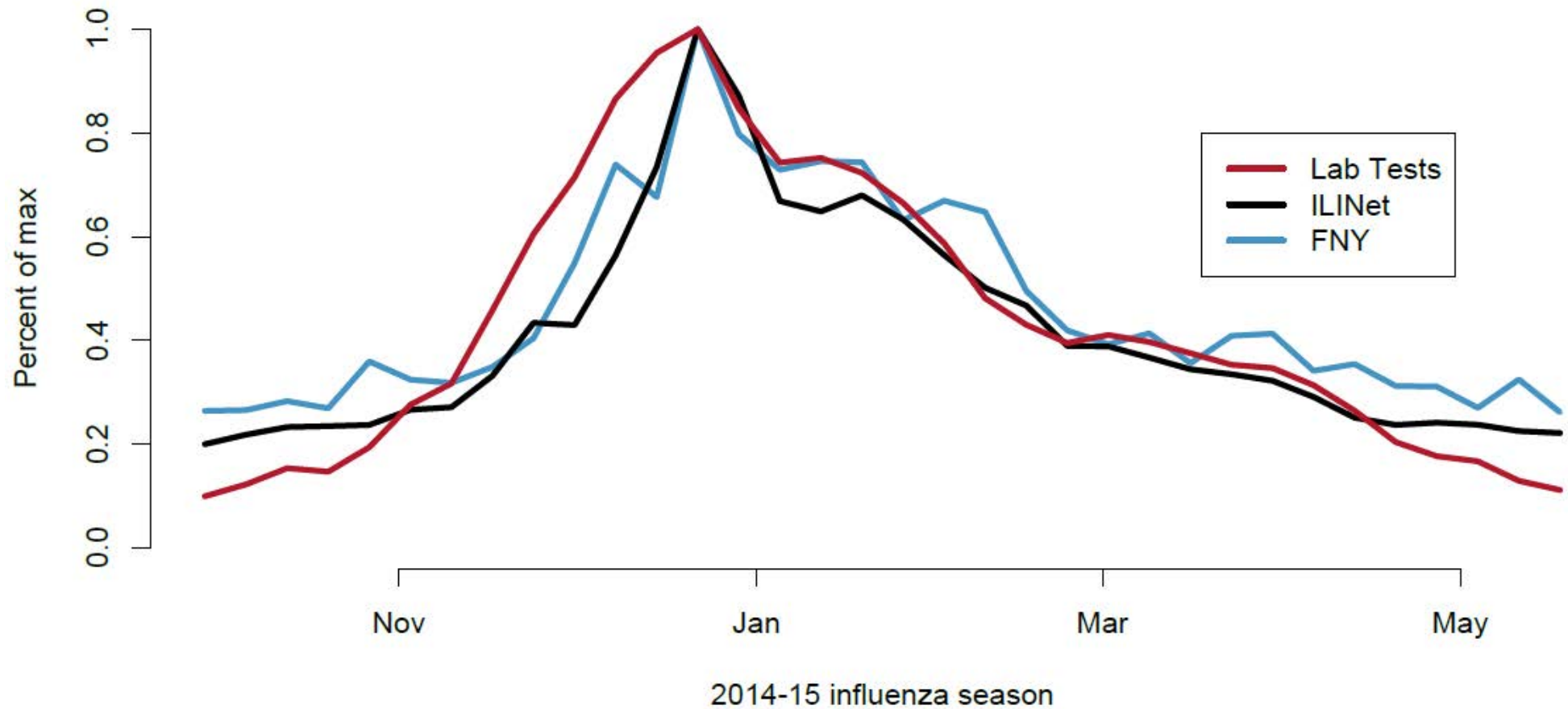
$N \approx 2$

# Validating data

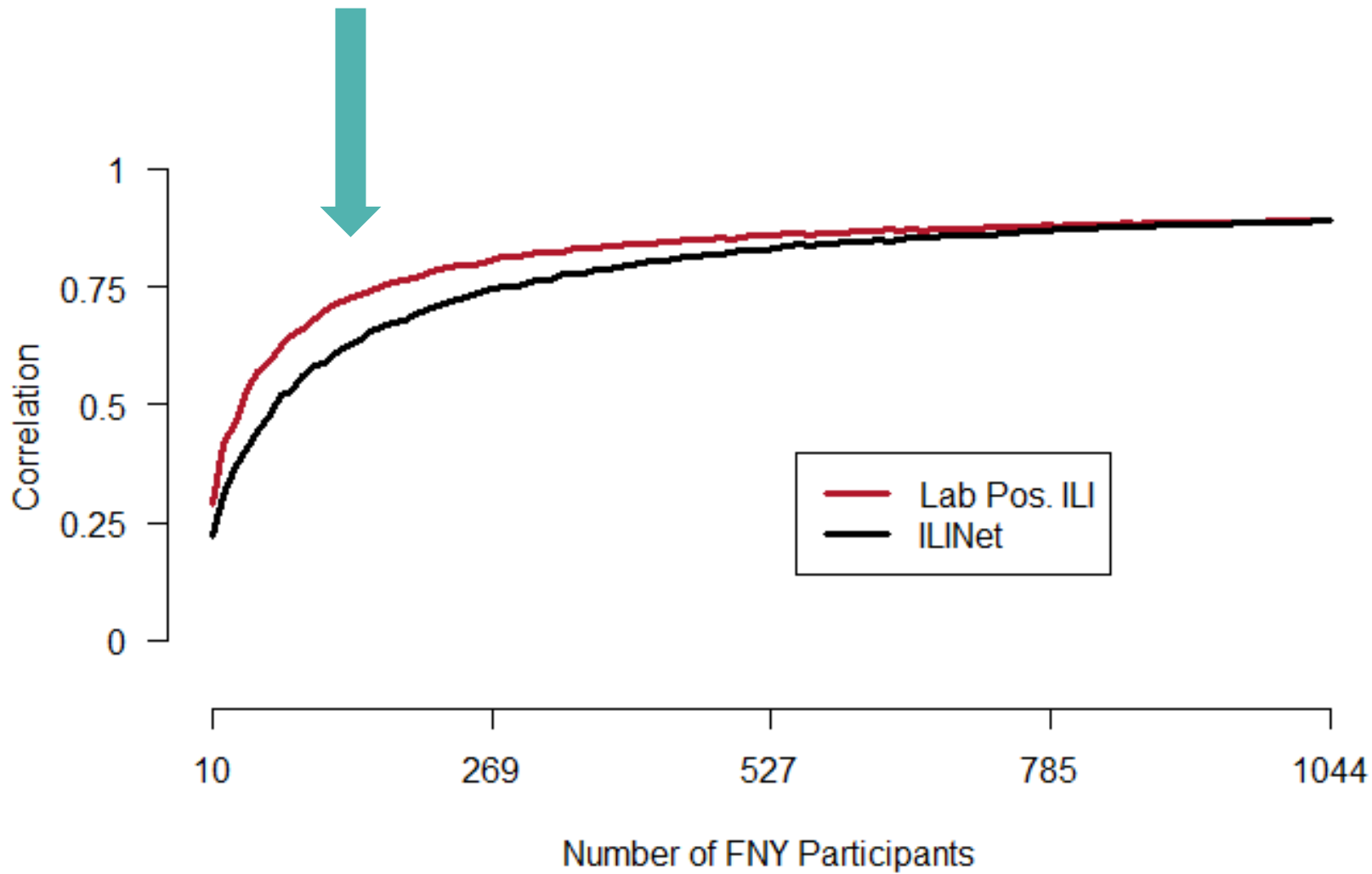
$R^2$ :  
0.93

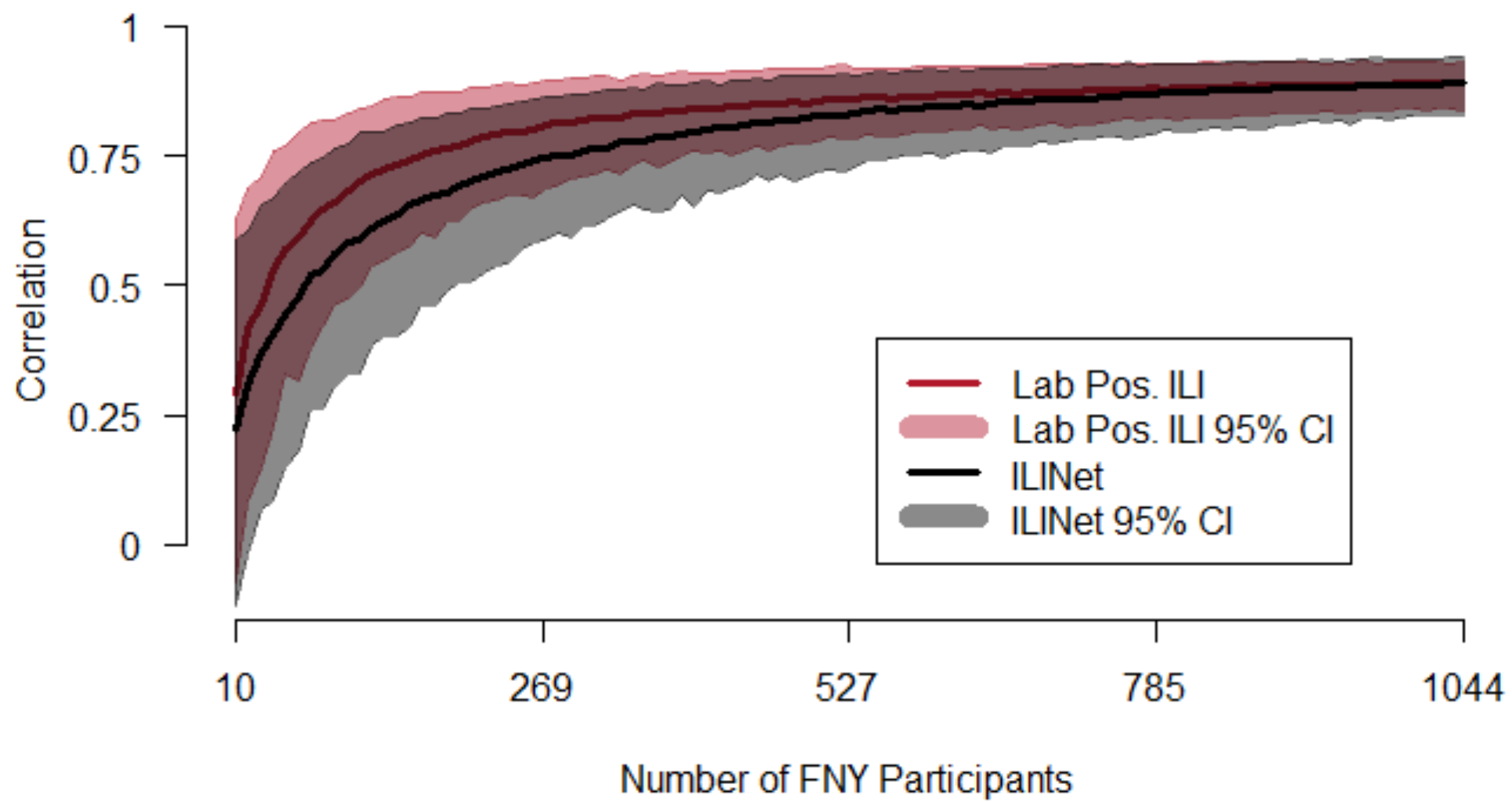


# Validating data

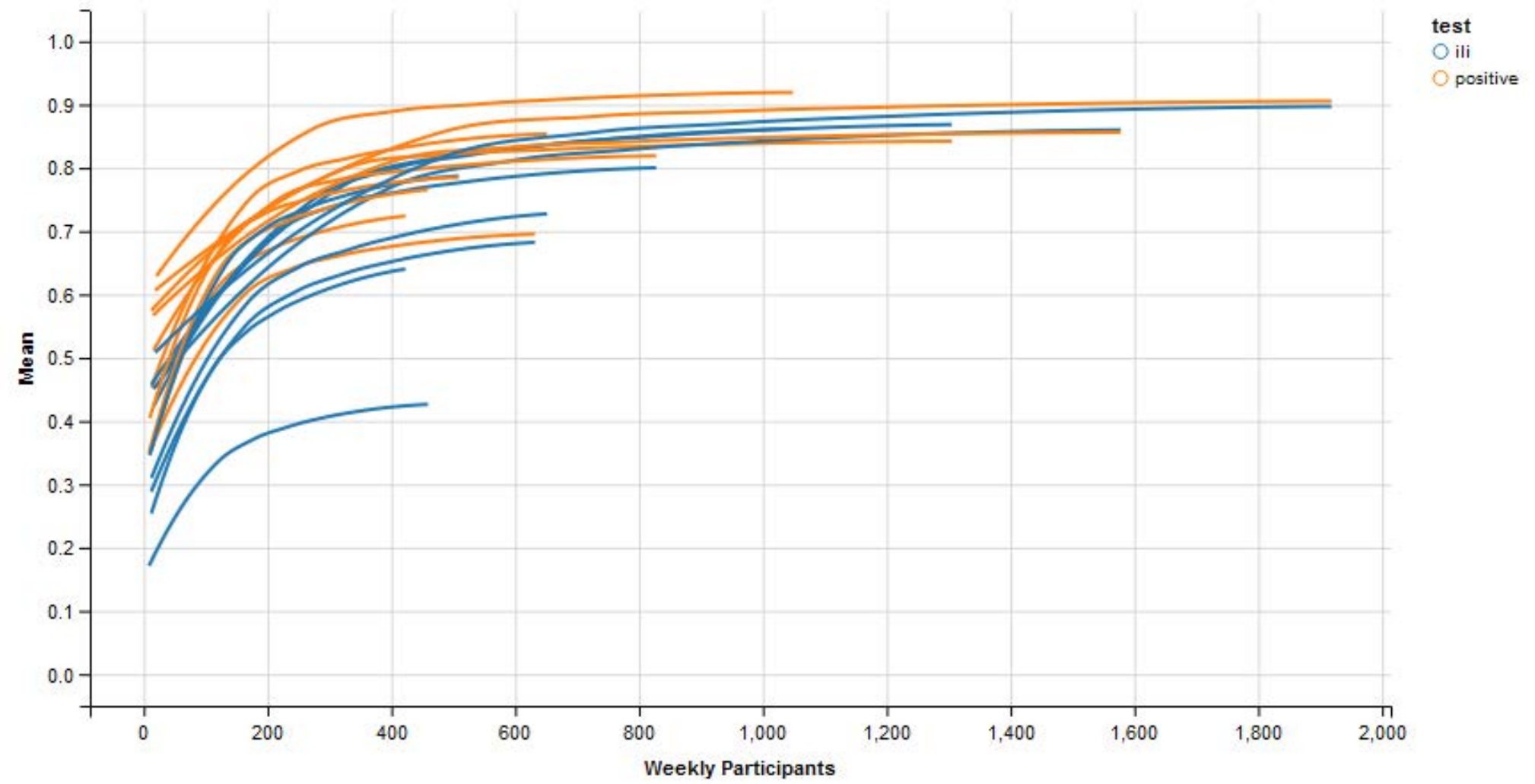


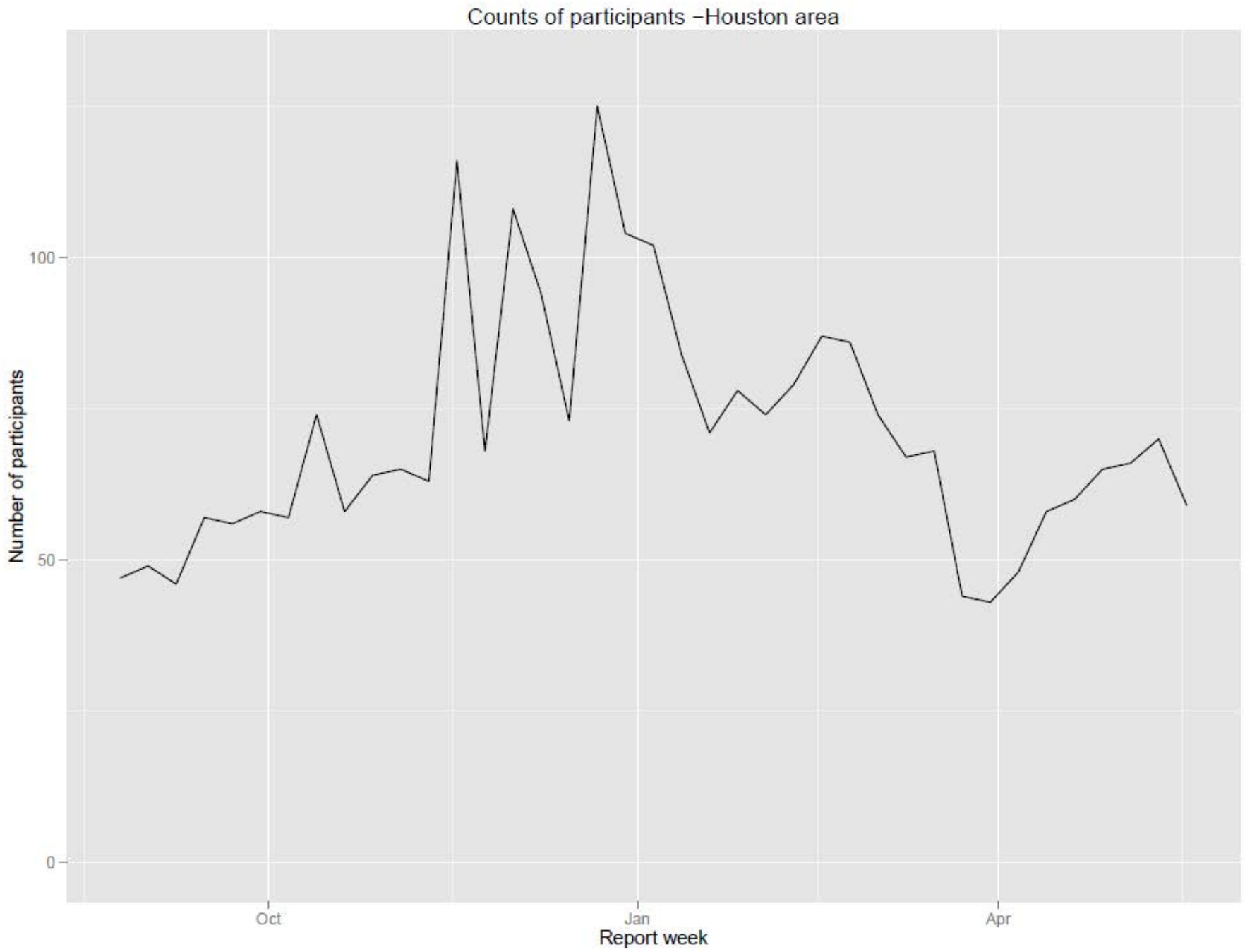
# Validating data





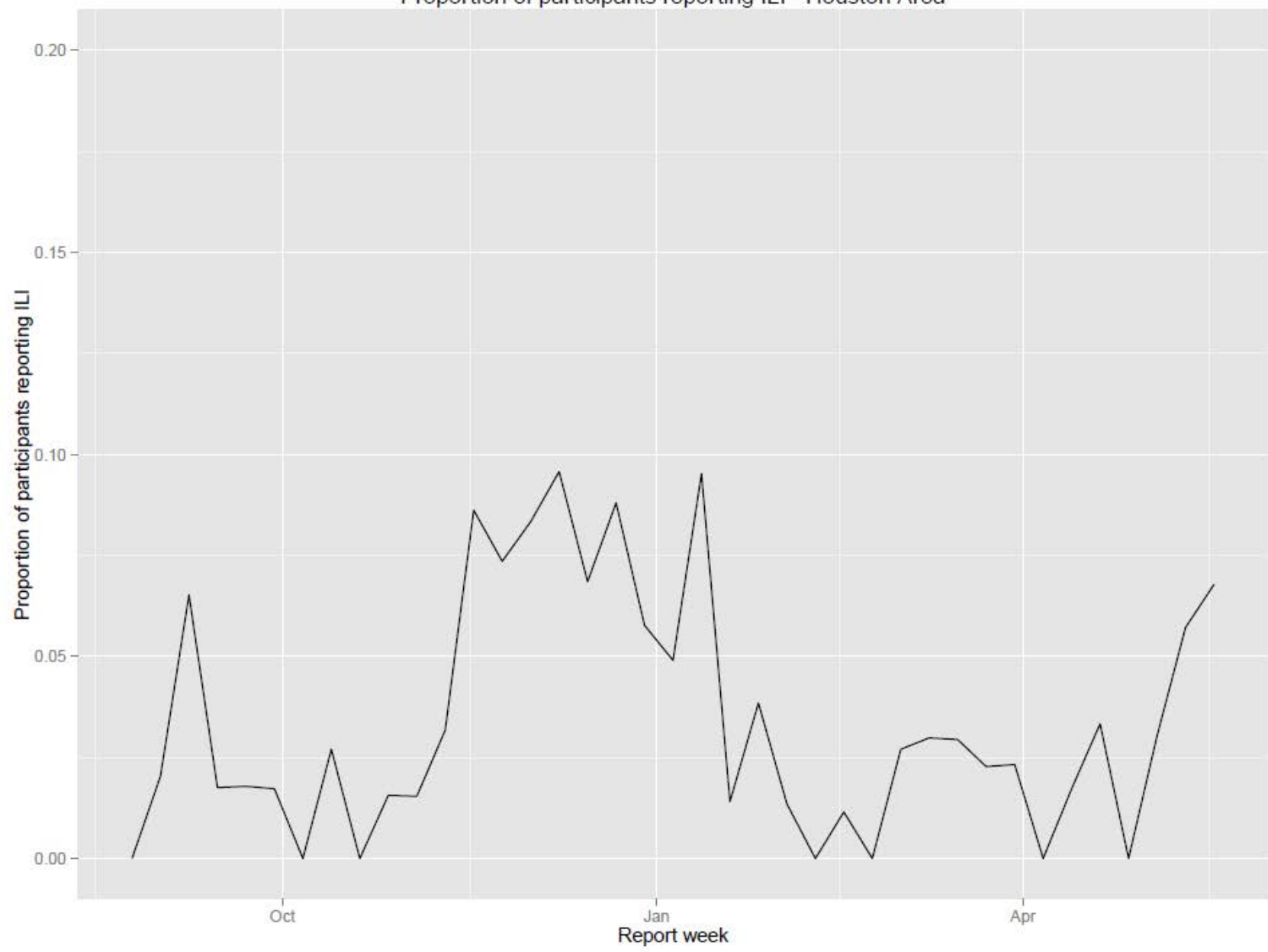
# Regional Correlations





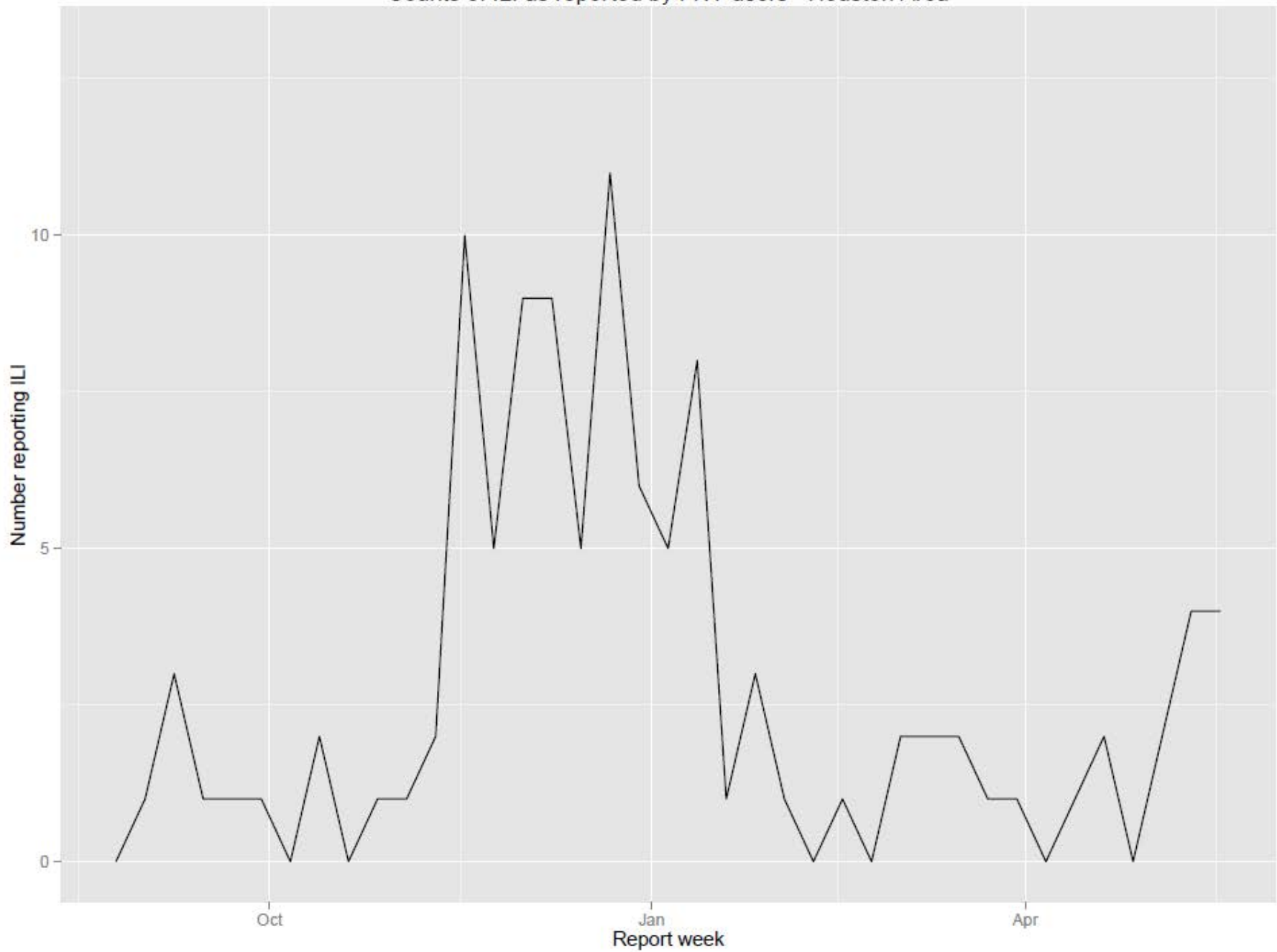


Proportion of participants reporting ILI -Houston Area





Counts of ILI as reported by FNY users -Houston Area





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## Acknowledgements

### HHD

- Eric Bakota
- Biru Yang
- Jeff Meyer
- Eunice Santos

# flu near you

do you have it in you?



EPITRACK

Flu Near You is a project developed by the Skoll Global Threats Fund and HealthMap of Boston Children's Hospital. Web and mobile development is performed by Epitrack