Problem Statement – West Nile Virus Detection[Type here]

- **Chicago has been plagued by West Nile Virus a.k.a. WNV, for many years**
- **WNV is the leading cause of mosquitos-borne disease in the US**
- **It is commonly spread through infected mosquitos**
- **The problem is - 20% of infected people, developed symptoms ranging from fever, to serious neurological illnesses and even death AND there is NO vaccines to prevent nor treat infected patients**
- **In 2004, Chicago Municipality and Chicago Dept of Public Health has established a comprehensive surveillance and control program**
- **Every week, mosquito in traps across the city are tested for the virus. The results of these tests influence when and where the city will spray pesticides**

The Objective:

- **To create a more accurate method of predicting outbreaks of WNV in mosquitos to help Chicago Municipality and Chicago Dept of Public Health to more efficiently and effectively allocate resources towards preventing transmission of this potentially deadly virus**

Preliminary EDA shows that…

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- **data is in-balance ie, outbreaks of WNV is rare. The baseline score using ratio is 95% noWNV. It is a challenge for our data scientist to come up with an accurate model (which Asher will touch on later).**
- **The weather dataset contains lots of great features that help in the modelling. We did some feature engineering that help to improve the accuracy of our model.**
- **With this, I will hang over to Amanda that touch on EDA in more detail and feature engineering…**