**PREDICT 2**

**1/5/15**

Meeting with: Peter, Billy, Jon, Kevin, Maureen, Parviez, Aleksei, Evelyn, Emily, Toph, Mindy, Allison, Zach, Amy, Andrew, Lizzie

*Brainstorming for P1 and P2 countries*

**Malaysia**

* Deep forest work combing survey work, interactions with animals, surveillance with animals
* Increase surveys with groups that consistently interact with wildlife; social work; Focus around communities
* Livestock work
* Kudat region-targeted human survey
* Serology
* Lizzie: We do have contact data
* Land-use impact and viral discovery in human

**Bangladesh (Jon, Mindy, Simon)**

* Macaques surveys- disease data from different populations; use some Thailand data
* Correlations between contacts, populations, -social structure, risk of transformation, super shatters
* Arif and colleague at university
* Land-use change- forested areas and humanized environment
* Testosterone levels correlated with spread
* Higher biodiversity- high risk
* Simon found clustering of diseases (should look into age, intergroup dominance, between group)
* Human behavior (locking up supplies, foods, feeding them in community sites) correlate with movement
* Comparative analysis- human to macaques and macaques to humans
* Avian flu difficult to get involved because of popularity
* Parviez- Human Social science work with influenza; Maureen/Jon to speak with Emily while in Bangladesh
* Border surveillance of livestock- fairly inexpensive to simply survey transport; comparative livestock; value chain-intensification; partner with Arif and government, wildlife dept, ICDDRB

**Thailand**

* New sites at border regions-
  + Suren (Thailand/Cambodia) – Supaporn and team has begun Human work
  + Mei-hong-song Province (Myanmar) – CDC Human surveillance work; bats
* Looking in Hanipah virus, surveillance in pigs, horses (from Philippines), elephants,
* Bat fecal collection sites- used for fertilizer; harvesters have not been tested; extracted industry
* Have stand alone projects, more in-depth work in humans,
* Macaques work- has individual data, just needs to analyze data in P2; test

FAO working with animal, not human, so we could do other animals and compare or human work; could include for analysis

**China**

* 4000 samples, mostly bats, very broad;
* Unan province
* Markets and Farms- currently only Farms, possibly wildlife
* No need to test poultry because data is collected; human needed
* Wildlife value chain from Myanmar border, following route and relating to Farm; most likely going to Market; possible to converge at markets
* Better to have specific study with specific hypothesis? Diversity concentrate along value chain hypothesis? Or move along towards source? Does this happen (similarly) with CoV along animal value chains? To stop next SARS [fill in epidemic] is it as simple as putting a ‘gate’ on the value chain?
* Subtype diversity across a gradient (at PoYang Lake): does it increase or decrease?
* Is momentum increasing, evolution the same, dominance,
* Is having poultry going to markets a big risk to human health?
* Difference in change in both humans and animals along chain… PRH: subtype diversity would decrease along chain, but incidence of transferal may increase…
* NIAID CoV testing receptor binding domains along chain – do they stay constant or does the human one increase?
* Compare other viral families across chains?
* How cross-reactive is CoV serology?
* Develop serology test that can distinguish strains of CoV.;
* Evaluate biosecurity risk by class; track and classify, then go more in depth

Next meeting January 20th