The human cases of swine-origin H3N2 influenza in Indiana and Pennsylvania resulted from existing influenza viruses exchanging genetic material through a process called “reassortment”

(Influenza A viruses have 8 RNA segments: HA, NA, PB1, PB2, PA, NP, M, NS)

**1998-2011 Swine H3N2 triple reassortant viruses**

**2011 human cases of swine-origin H3N2 influenza in Indiana and Pennsylvania**

**Pandemic 2009 H1N1 viruses**

The human cases of swine-origin H3N2 influenza in Indiana and Pennsylvania contain the “M” RNA segment from the 2009 H1N1 virus and 7 RNA segments from swine H3N2 triple-reassortant viruses.

* The RNA segments for HA and NA determine the structure of the HA and NA proteins on the surface of influenza viruses.