ESCHERICHIA COLI REPORTED IN BROILER PRODUCTION TO THE FRENCH EPIDEMIOLOGICAL SURVEILLANCE NETWORK IN POULTRY

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The aim is to describe the epidemiological situation of *Escherichia Coli* in broilers in France in past ten years, using data available in the RNOEA (French epidemiological surveillance network in poultry). The main objectives of this network are to follow epidemiological trends of avian diseases in France and to hierarchise them, to detect and to alert about emerging and major diseases.

MATERIALS & METHODS

- Every month, the network collects voluntary diagnosis transmitted by 52 avian veterinarians members.
- They transmit to the network managers the diseases observed in their poultry flocks, whatever the avian production type.
- For each disease observed, they indicate : its localization, the poultry production and the number of diseased flocks.
- For each production type, the number of diagnosis collected annually is synthesized; corresponding to the number of flocks, followed by the network members and affected by the disease.
- The annual relative frequency (expressed in percentage) is also determined; corresponding to the ratio of the number of a disease diagnosis collected on the total number of data collected in the year for a poultry production considered.

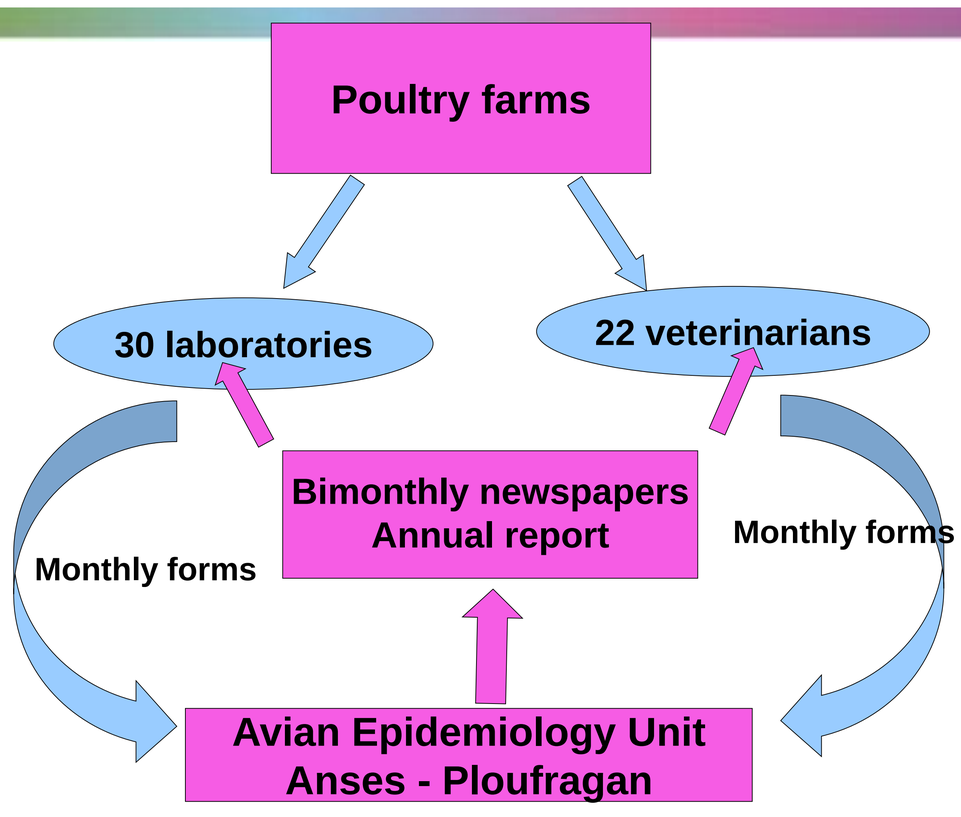

Figure 1 : Operating principe of RNOEA

RESULTS

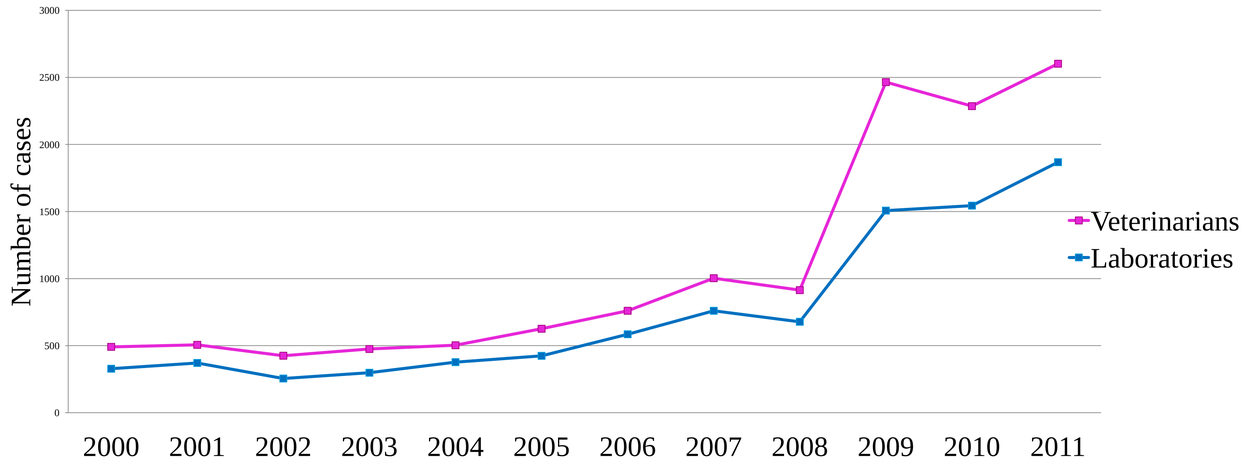

Fig 1: Colibacillosis reported to the network beetwen 2000 and 2011

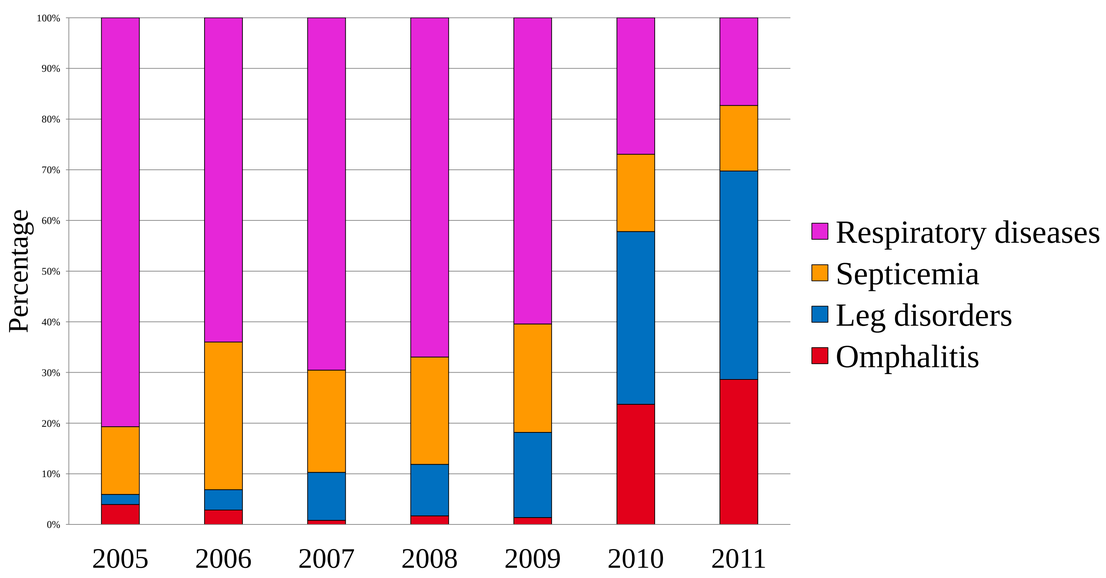

Fig. 2: Diagnosis associated to colibacillosis (veterinarians data)

➢ **Diagnosis associated** show an increase of the relative frequencies of omphalitis and leg disorders.
➢In parallel diagnosis of septicemia and respiratory diseases decrease.

➢ **A recrudescence of E. Coli** was observed in 2009. The number of observations doubled in 2009 compared to 2008 for the laboratories and was multiplied by four for the veterinarians. Since 2009, the number of reports continues to increase.
➢The **relative frequency increased** in 2009 by 15% for laboratories (41% in 2008 to 56% in 2009) and 30 % for veterinarians (36% in 2008 to 66 % in 2009).

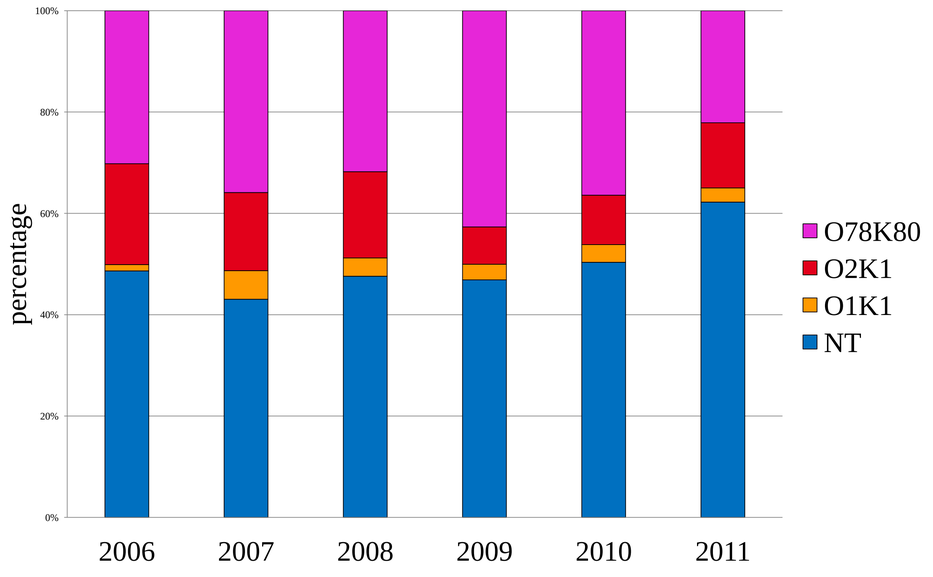

Fig.3: Serotypes associated to colibacillosis (laboratories data)

➢ **E. Coli O78K80 is the serotype** most often identified, with a peak observed in 2009.

CONCLUSION

Given the passive mode of transmission of data on a voluntary basis, the representativeness of the data collected by the RNOEA is difficult to assess. However, this synthesis has highlighted an increase in E. Coli infections in the broiler industry since 2009. It is characterized particularly by an increase in leg disorders and omphalitis associated with a predominance of serotype O78K80.

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