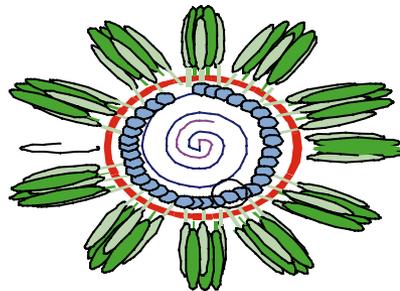


Imported Cases of Chikungunya Among Canadian Travellers

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The ***Canadian Science Centre for Human and Animal Health*** is a high-security bio-containment facility housing two Government of Canada infectious disease laboratories; (National Microbiology Laboratory – BSL 2, 3, 4), & National Centre for Foreign Animal Diseases (L2,3,4)



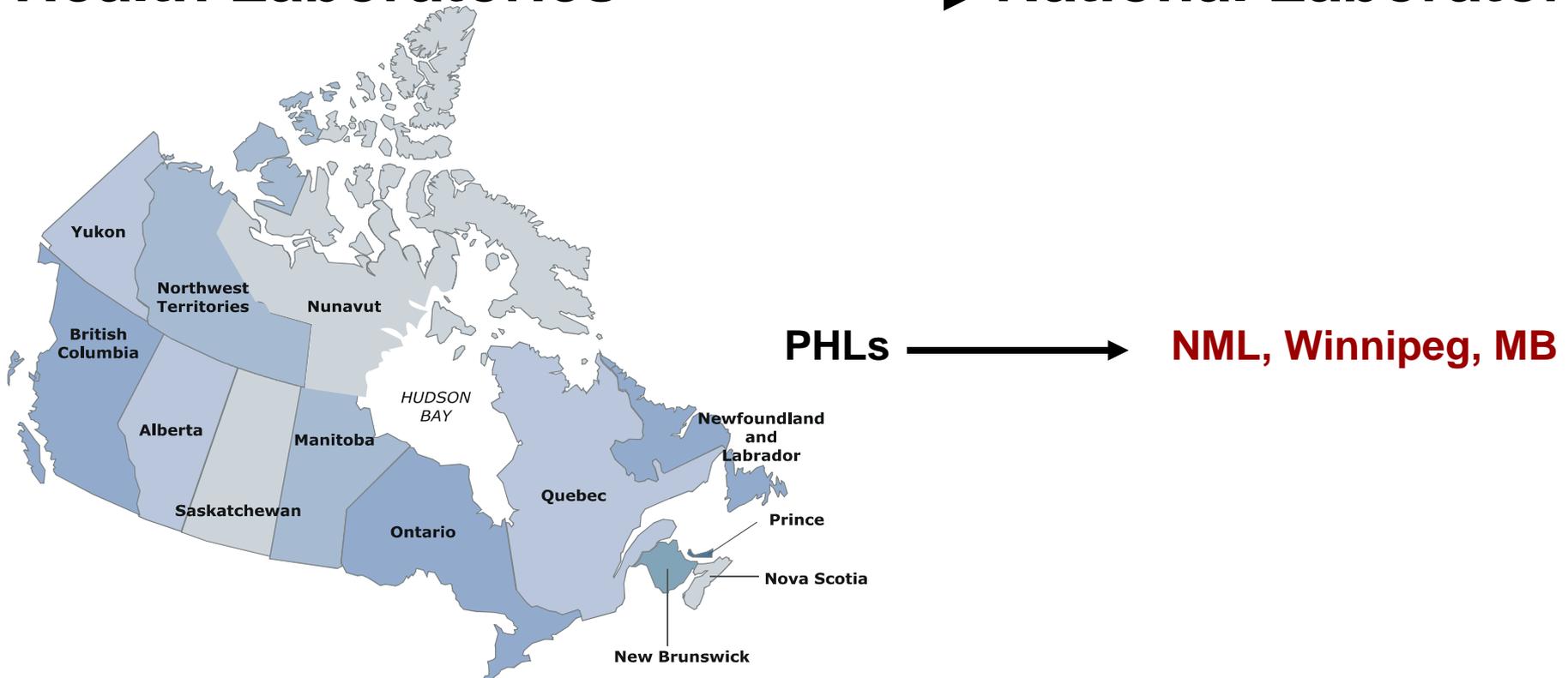
Government
of Canada

Gouvernement
du Canada

Canada 

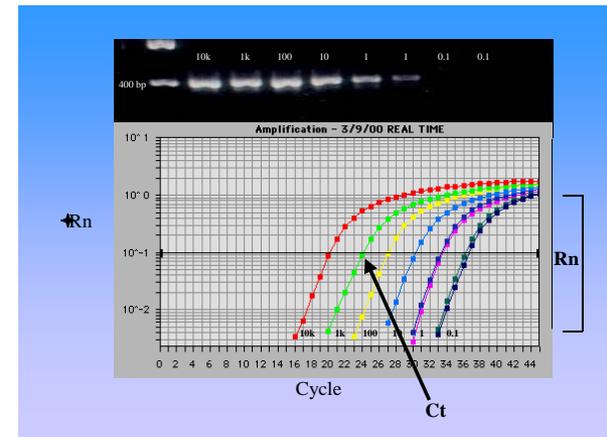
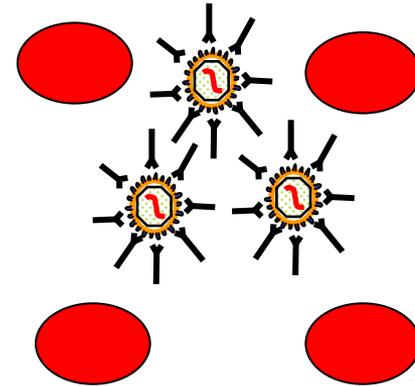
Canadian Suspect CHIK Cases Sent to National Microbiology Laboratory (Viral Zoonoses, WHOCC)

- Travel History and Clinical Criteria / Symptoms (?)
- Hospitals, etc, - Samples → Provincial Public Health Laboratories → National Laboratory

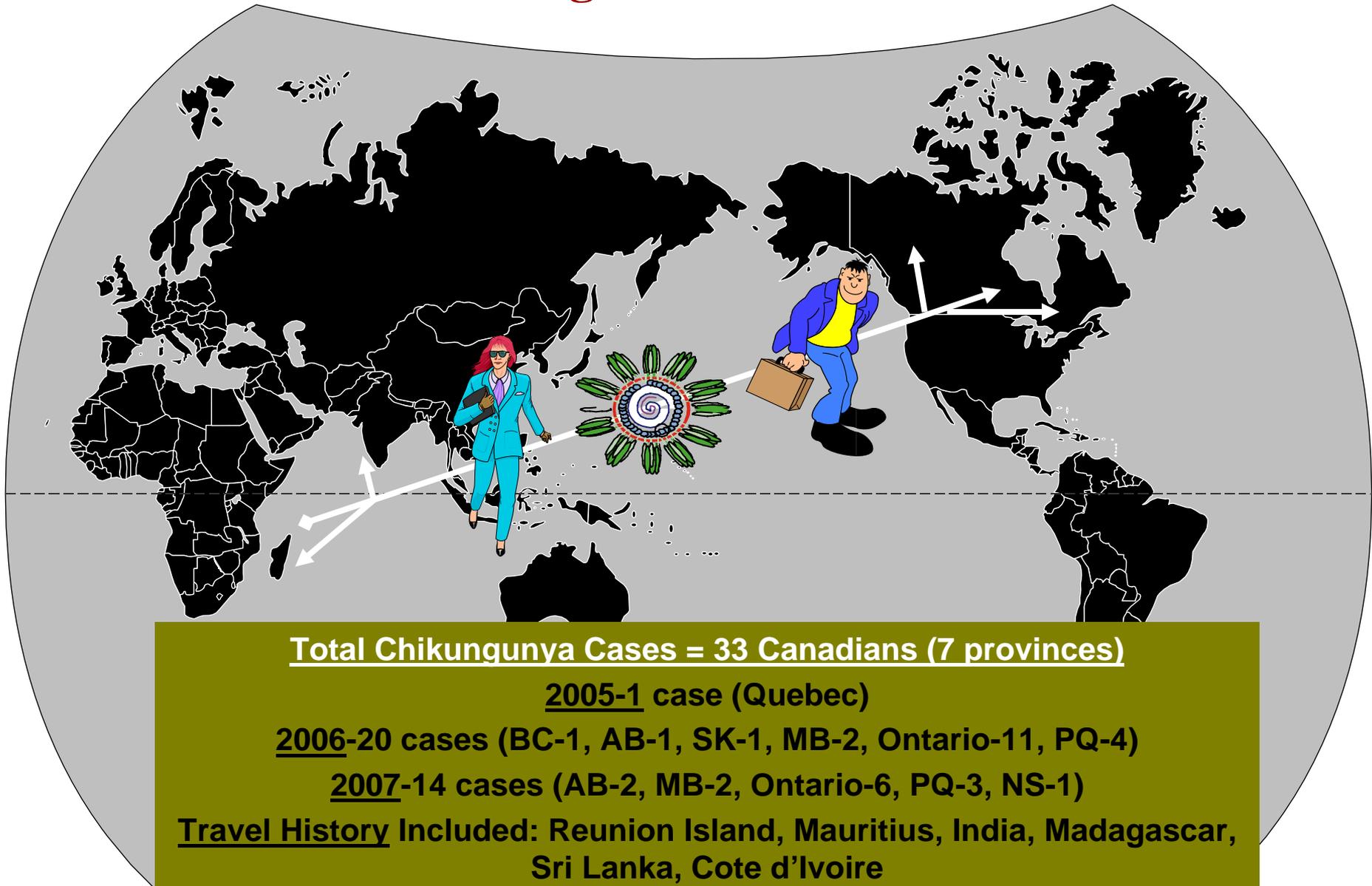


Diagnostocs

- **Hemagglutination Inhibition (HI)** serology was used to identify Chikungunya antibody in patient sera (differentiates CHIK from EEE & WEE, 320 titres vs 10,20)
- CDC IgM / IgG ELISAs and plaque reduction neutralization tests being applied as well
- Conventional and real time RT-PCR was performed on selected sera using primers specific for NSP, etc. genes of virus

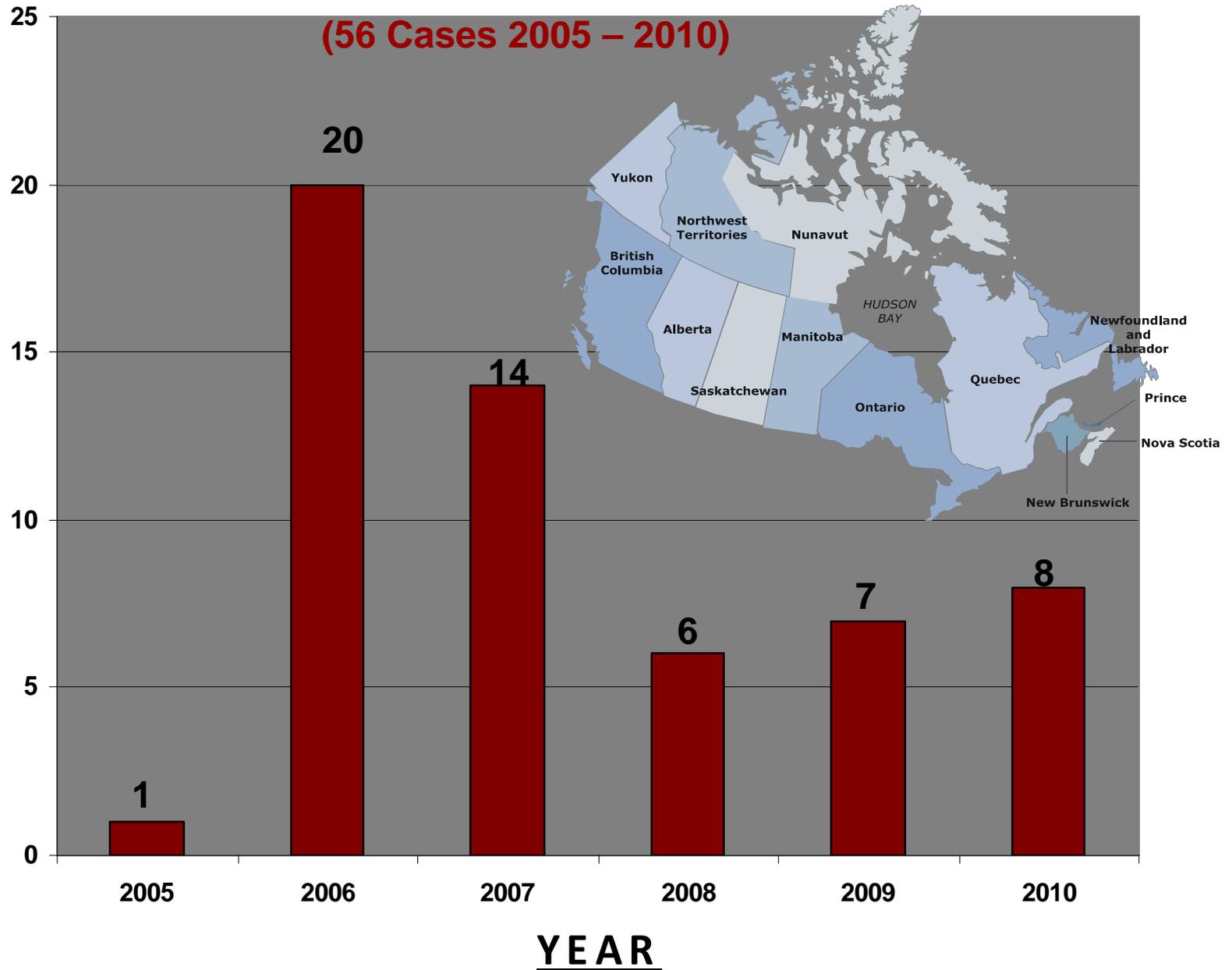


Importation of Chikungunya Virus from Indian Ocean: Canadian Cases During Outbreak 2005-2007



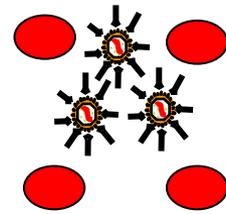
Clinical symptoms/disease : fever, myalgia, arthralgia & rash

TOTAL PROBABLE - CONFIRMED CANADIAN CHIKUNGUNYA CASES BY YEAR





Results



- **Imported cases (56) were identified among travellers from 8 Canadian provinces from 2005 – 2010**
 - **Travel to : Reunion Island, Mauritius, India, Madagascar, Sri Lanka, Indonesia, Cote d'Ivoire, etc.)**
 - **Clinical symptoms included fever, rash and severe joint pain**
 - **HI titres ranged from 40 to 2560 using CHIKV antigen (mouse brain) with seroconversions documented in a number of cases.**
- Minimal cross reaction to WEE and EEE antigens was observed**
- **A number of the suspect cases also had antibody to flaviviruses such as dengue.**

Acknowledgements

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- **Canadian Public Health Laboratories**

