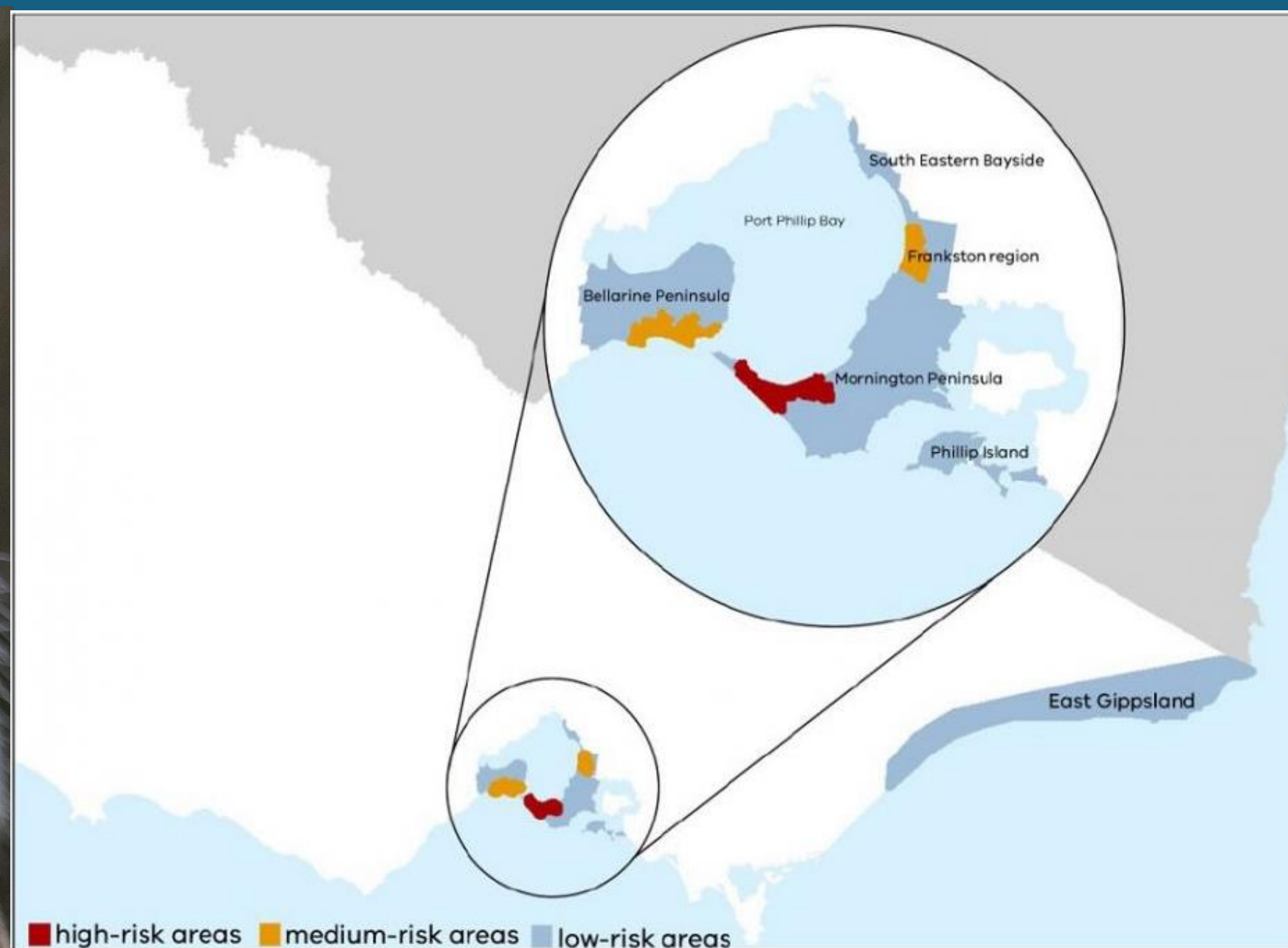


BURULI ULCER

Mycobacterium Ulcerans Infection

Dr. Bruce Bartley, Dr. Daniel O'Brien - Barwon Health, Victoria

A neglected tropical disease in the Barwon Region of Victoria, Australia;
An emerging public health threat with local and national ramifications



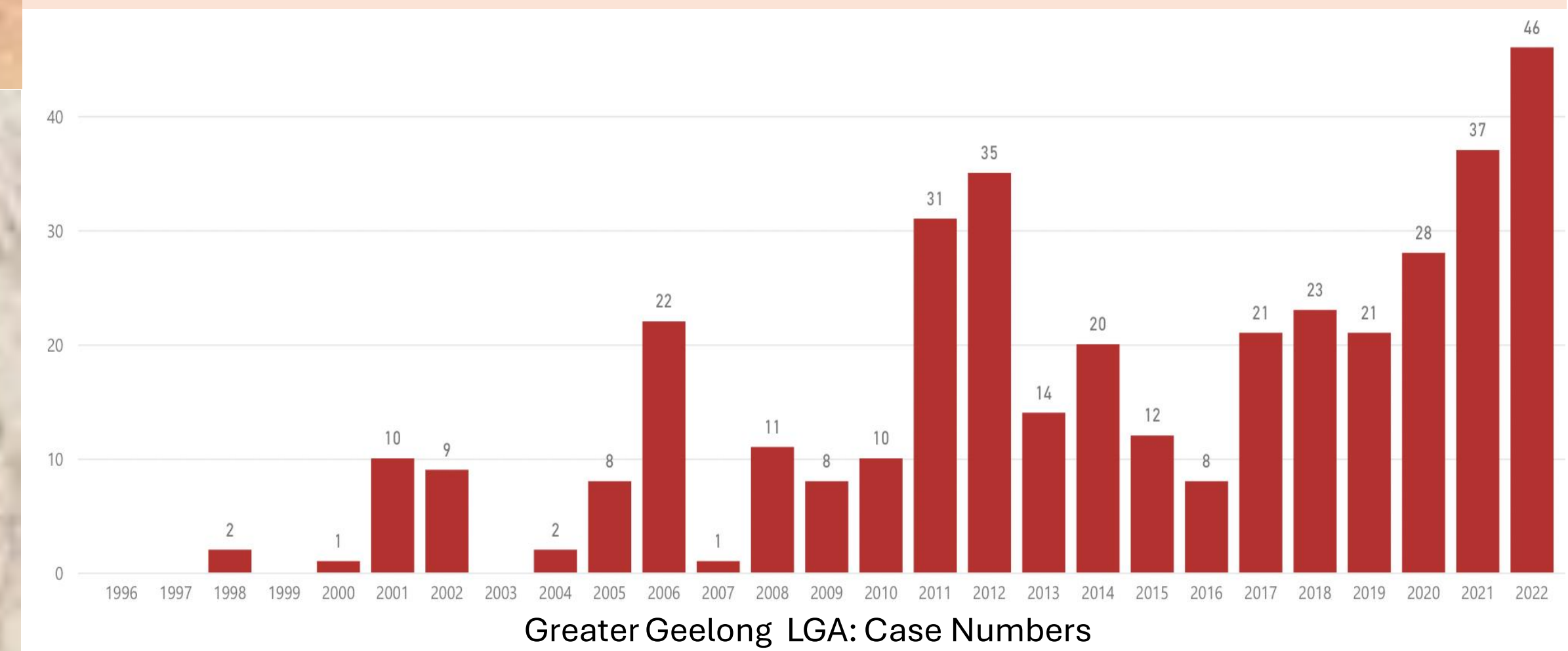
What we know

- Mycobacterium Ulcerans (MU) toxin mediated (myolactone)
- Neglected Tropical Disease (NTD) with profound morbidity in Lower Middle Income Countries
- Increasing incidence & severity in Victoria
 - New areas (inner city Melbourne & Geelong and Surf Coast)
 - Financial and human cost
- Effective treatment but high rates of toxicity
 - Early diagnosis, antibiotics and judicious surgery
 - BUT diagnosis is often delayed
 - Low profile, false negative initial PCR
- Established areas of endemicity in Victoria are mainly heavily touristed coastal towns



What Systems are in Place?

- MU infection is notifiable (in writing) in Victoria
- Infectious Diseases Leadership and research
 - Population level surveillance
 - Early review/diagnosis/treatment for individuals
 - Education for primary care physicians and community awareness
 - Close collaboration with Plastic Surgeons



What We Think We Know

- **Probable modes of transmission**
 - Mosquitoes and other insect vectors
 - Possums as a reservoir
 - Contamination of wounds
- **Potential Preventive Measures**
 - Minimise mosquito and other insect bites
 - Disrupt breeding sites
 - Personal protective measures
 - Outdoor wound care
 - Avoid direct possum contact
- **Incubation period: 2-9 months**
 - Travellers to endemic areas returning to non-endemic/low awareness settings
 - Nationwide/worldwide

What More is Being Done?

- Ongoing Research
 - Barwon Health/DoH/Other Stakeholders
 - Recent case control study on environmental risk factors
 - Possum vaccination with BCG bait
- *Beating Buruli Project*
 - Actively disrupt disease transmission
 - develop evidence-based disease prevention policies and guidelines
 - Mosquito control trial commenced in Summer 2022/23
 - Community information:
 - <https://www.health.vic.gov.au/infectious-diseases/beating-buruli-in-Victoria>

What can YOU Do?

- **KNOW HOW IT PRESENTS**
- Advocate prevention measures and community awareness
 - Avoid mosquito bites and possums
 - Outdoor wound care
- Early diagnosis/differential diagnosis
 - Know where MU is endemic
 - Detailed travel histories (2-9 month incubation)
 - Beware an early false negative PCR

What We Don't Know

- Why the incidence is increasing
- Why the severity is increasing
- Why new areas of endemicity are appearing
- Definite mode of transmission
- Proven preventive strategies