

Example Reintroduction Malaria in the Americas Jamaica 2006

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Eradication Certified by WHO

With long history of control efforts:

Venezuela

Taiwan

Netherlands

Puerto Rico

Australia

Hungary

Cyprus

United States

Portugal

Singapore

Spain

Poland

Italy

Yugoslavia

Bulgaria

Romania

Cuba

Reunion

Caribbean Islands

Grenada

Jamaica

Trinidad & Tobago

Virgin Islands

Dominica

St. Lucia

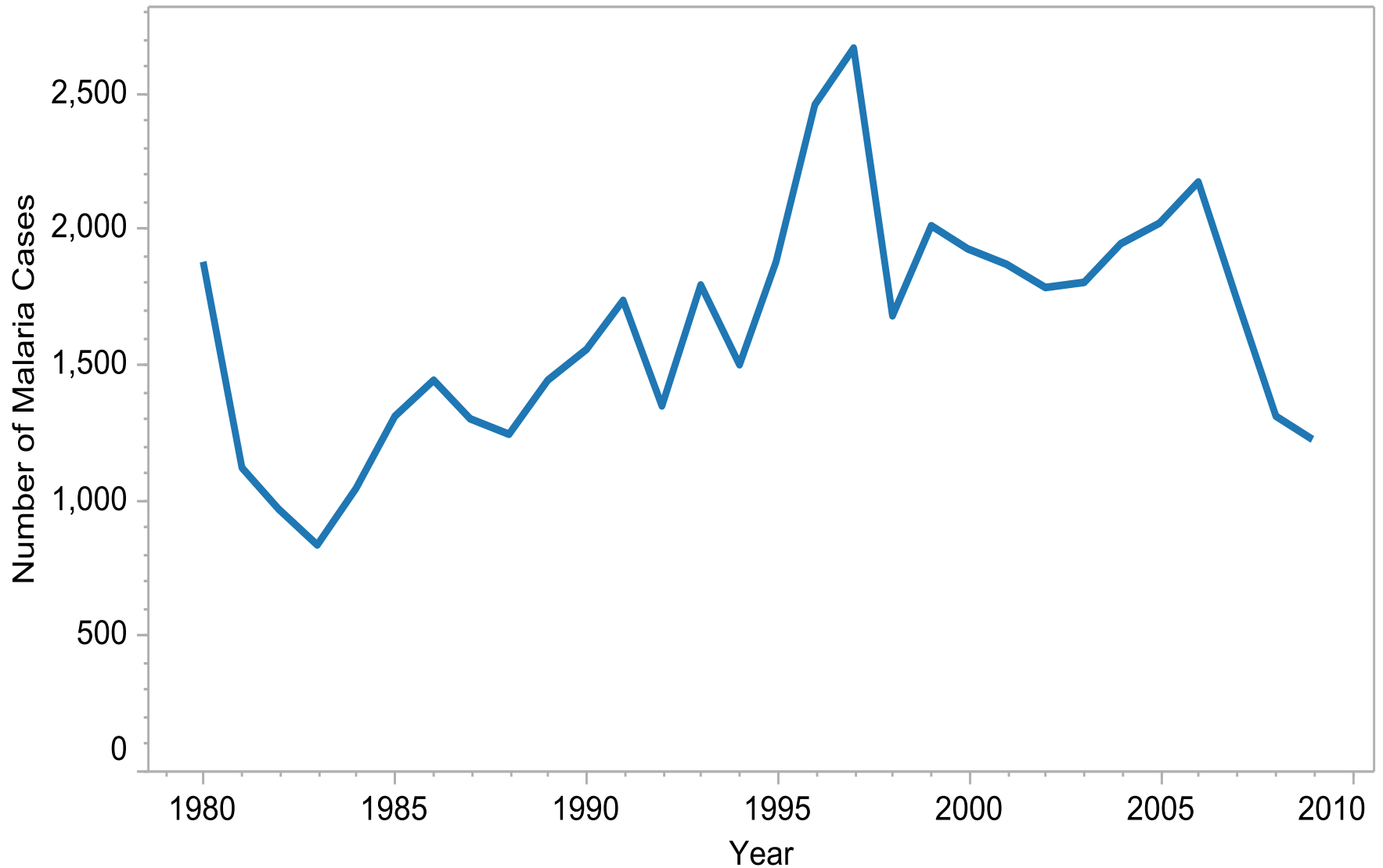
Others

Mauritius

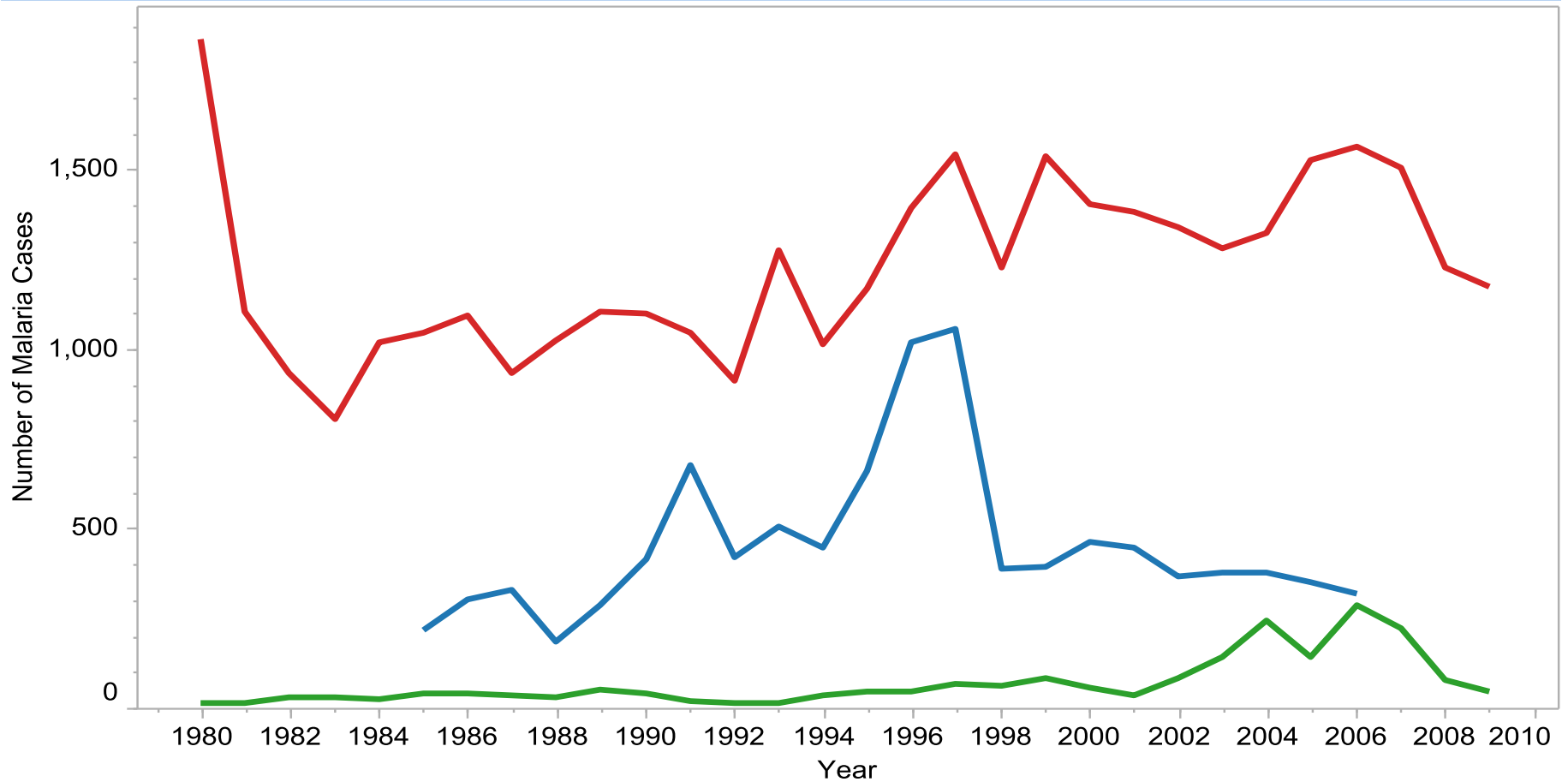
Brunei

[Recent Elimination: UAE, Morocco]

Malaria in nonendemic countries, 1980- 2009



Malaria in nonendemic countries, 1980- 2009



*Other countries excludes cases from Cuba

Country

- USA
- Canada
- Other Nonendemic countries



Source: Country Reports to PAHO/WHO

Preventing Reintroduction?

USA: Imported cases annually, introduced cases, surveillance, outbreak response

Cuba: Imported cases – soldiers, students, introduced cases, surveillance, outbreak response

Uruguay, Chile: imported cases - UN peacekeepers; minimal / no risk

Others: good fortune? imported cases, poor vector, weak surveillance

Outbreaks

1. **Trinidad and Tobago: outbreak 38 cases *P. malariae* in 1966; 10 cases *P. vivax* in 1990 and 42 cases *P. malariae* in 1994/5.**
2. **Grenada: *P. malariae* outbreak with 58 cases detected in 1978.**
3. **Cayman Islands: *P. falciparum* outbreak with 3 cases detected in 1997.**
4. **Bahamas: *P. falciparum* outbreaks in 1998 and 2006: 19 cases.**
5. **Jamaica: *P. falciparum* outbreak Nov. 2006 – Oct. 2009: 406 cases.**

How can we prevent and respond to outbreaks?

- Surveillance – imported cases suspected
- Diagnosis and appropriate Treatment available
- Knowledge of vectors and breeding sites
- Vector control
- Community awareness, participation

Bahamas: Three-phase approach

- ***Phase One***
 - Emphasis on identifying persons in Exuma who had symptoms consistent with Malaria
- ***Phase Two***
 - Contact tracing
- ***Phase Three***
 - Sero-prevalence study

Source: Ministry of Health, Bahamas

Bahamas - Epidemiologic Investigation and Case Finding

Phases 1 and 2

- Active case detection conducted
- Persons with history of fever examined
- Contacts screened
- Fever survey

Source: Ministry of Health, Bahamas

Bahamas - Malaria Prevalence Phase 3

- Prevalence survey conducted in the Haitian community
- 159 persons tested, 29 asymptomatic adults infected with *P. falciparum*
- Mass treatment of 203 persons within that community

Source: Ministry of Health, Bahamas

Jamaica Experience

1994-2003: average 6 imported cases / year

2004-2005: 144 and 88 imported cases resp.

70% imported by immigrants

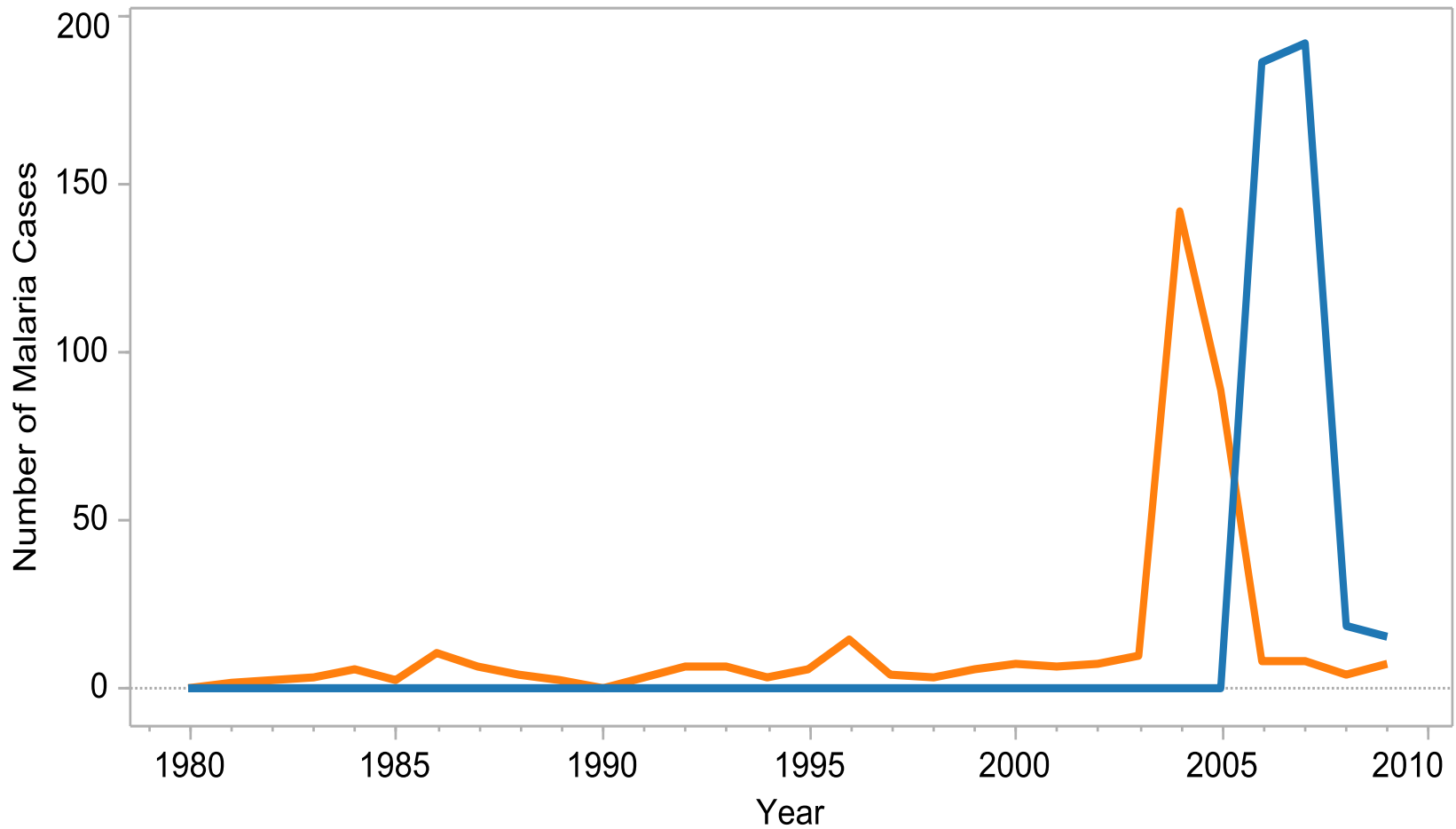
Nov. 2006: 4 confirmed cases - residents

Emergency response

Jamaica

- After 44 years of certification eradication of malaria
- Outbreak of *Plasmodium falciparum* in 2006
- 408 confirmed cases identified from September 2006 to December 2010.
- Ministry of Health mounted an emergency response for control using strategies of early case identification, prompt treatment, vector control, public education and inter-sectoral collaboration.
- Outbreak peaked in December 2006
- 363 (90%) persons with confirmed malaria resided in Kingston, the capital;
- Majority (63.6%) cases identified through house to house surveillance.
- Result of imported cases from Haiti

Malaria in Jamaica by origin of case, 1980- 2009



Origin of Case

■ Autochthonous ■ Imported

Thank You
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