Malaria Situation in Belize:
Preventing the Reintroduction of Cases in Malaria Free Areas

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Vector Control Chief of Operations

4ta Reunión Regional de la EMMIE
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Belize

Population Estimate: 377,968

Surface Area: 8,867 sq. miles/ 22,966 sq. km
Current Malaria Situation

- Between 2000 and 2016 the country achieved a 99.7% reduction in cases from 1,486 cases to 5 in 2016
- 2015 – 13 cases & 2016 - 5 cases – 61.5% reduction
- Lowest recorded number of cases since 1963 there were 8 cases
- In 2016 local transmission occurred in 1 locality (Trio Village) - but there are 27 foci under surveillance
- Last comprehensive assessment resulted in classification of 11 active foci and 8 residual
- 6 Districts in country – Stratum 1 – 2 districts, Stratum 2 – 4 districts, Stratum 3 – none
## Recent Malaria Trend

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<thead>
<tr>
<th>District</th>
<th>SPECIES</th>
<th>FALCIP</th>
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<td>2014 Malaria by District and Species</td>
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2016 – 2 local and 3 imported cases
Current Malaria Situation

- The primary target area have shifted from the south to the North along the border with Mexico.
- Target area with highly mobile populations crossing at several illegal points for commerce, and work (mainly sugar cane farming).
- In the South great results were produced using:
  - 14 day supervised treatment
  - Bi-annual IRS
  - Distribution of LLIN’s (bed nets)
  - Active surveillance
- Communities in the North are larger and interventions have to be very strategic due to limited budget and is limited to bi-annual IRS and Active Surveillance.
Areas of Concern Along Belize – Mexico Border
Malaria Trend – 20 years

**Graph: Malaria - 1995 - 2016**

- **Graph Title:** Malaria - 1995 - 2016
- **X-axis:** Years (1995 to 2016)
- **Y-axis:** Numbers (0 to 10000)
- **Data Points:**
  - 1995: 9413
  - 1996: 6605
  - 1997: 4014
  - 1998: 1853
  - 1999: 1486
  - 2000: 1163
  - 2001: 1113
  - 2002: 1324
  - 2003: 1066
  - 2004: 1549
  - 2005: 844
  - 2006: 845
  - 2007: 540
  - 2008: 256
  - 2009: 150
  - 2010: 79
  - 2011: 37
  - 2012: 26
  - 2013: 19
  - 2014: 13
  - 2015: 5
  - 2016: 0

**Map: Mexico and Guatemala**

- **Classification of Focus:**
  - Active foci

**Footer:**

- **Ministry of Health:** Equal health for all

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*Image of an insect near the map.*
Major deficiencies affecting elimination by 2020

- Greater networking and sharing of information with neighbouring countries
- Lack of technology in testing low parasite densities/sub microscopic levels
- Limited human resources in programs with staff responsible for multiple vector borne diseases
- Succession planning – ensuring new/young staff trained in various competencies – eg. entomology, basic field epidemiology etc.
Achieve a 20% reduction in Malaria cases vs 2016 baseline

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2017 – 2020 Plans

- Program being guided by recommendations made by Global Fund/PAHO validation team:
  - Increase active surveillance in border communities in the north
  - Ensure complete supervision of treatment for all cases
  - Classification and monitoring of foci
  - Strengthening of network of Community Health Workers and Malaria Voluntary Collaborators - over 300 persons responsible for 80 – 90% of cases detected – network is getting weak
  - Improve efforts to re-orient healthcare workers on malaria elimination efforts
  - Reduce delay between **blood collection** ➔ **diagnosis** ➔ **treatment**
2017 – 2020 Plans

- Evaluate current strategies to ensure efficient spending – do we continue to use LLIN’s & IRS in current foci under surveillance
- Seek support on the area of study or testing sub-microscopic levels of parasite
- Encourage better participation of private sector in malaria surveillance system
- Improve the lines of communication between neighbouring countries for better surveillance and coordination of simultaneous activities in communities along the border
- Closely monitor expanding sugar cane industry in the West (stratum 1) employing high number or labourers from high risk areas in Guatemala
THANK YOU