Caribbean Public Health Agency

Preventing disease
Promoting and protecting health
CARPHA STRATEGIES AND PROGRAMMATIC WORK

- Regional Public health agency serving 29 member states.
- **AMR work fall under**
- **S.P.2.2** CMS enabled to prevent, respond and manage public health through a coordinated approach to implementation of the Global Health Security Agenda (GHSA) Roadmap for the Caribbean Region.

- **S.P.4.5** Increased availability of strategic information, through research and data management, to inform health policy and programmes in Member States

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**CARPHA Medical Microbiology Laboratory (CMML)**

- Regional Reference and referral testing accredited lab
- Testing services provided to 26 CMS through National Public Health Laboratories (Vaccine Preventable, Respiratory, Vector borne and Foodborne Diseases) including
  - Whole Genome Sequencing
  - Virus Isolation
  - AMR
Status of AMR activities in Caribbean

- CARPHA, Hospital and Public health laboratories in many countries conduct AMR testing on ad hoc basis:
  - Hospitals: mainly non-enterics
  - Public Health Laboratories: mainly enterics (Salmonella & Shigella)

- No regional established AMR surveillance program

- No routine data collection, reporting & analyses

- Surveys (2009, 2013, 2022) 13-15 CMCs conduct ad hoc AMR testing

- Pathogens AMR tests performed on
  - Enterics (previously)
    - Salmonella, Shigella,
  - Non Enterics
    - Streptococcus pneumoniae & Haemophilus influenzae
    - Neisseriae gonorrhoea
    - MRSA, ESBLs
CARPHA and Public Health England Tackle the Threat of Antimicrobial Drug Resistance
• 2014

Antibiotic stewardship in the Caribbean: Developing the role of pharmacists through a regional training program
• 2016-2018

Establishment of a regional reference service to provide reliable automated antimicrobial susceptibility data for the Caribbean: System description and early findings
• 2017-2019

Caribbean multi-centre study of *Klebsiella pneumoniae*: whole genome sequencing, antimicrobial resistance and virulence factors
• 2019

WAAW Lets Unite to Preserve Antimicrobials
• 2020

COVID-19 Pandemic

Antimicrobial Resistance in the Caribbean
• 2022
Preventing disease, promoting and protecting health

Q10 Is your laboratory able to conduct AMR testing and reporting?

<table>
<thead>
<tr>
<th>ANSWER CHOICES</th>
<th>RESPONSES</th>
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<tbody>
<tr>
<td>Yes</td>
<td>66.67%</td>
</tr>
<tr>
<td>No</td>
<td>33.33%</td>
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Total Respondents: 15

ANSWER CHOICES

<table>
<thead>
<tr>
<th>CMS requesting AST in last 5 yrs</th>
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Anguilla
Barbados
Bahamas
Belize
Bermuda
Cayman Islands
Grenada
Jamaica
Saint Lucia
Saint Vincent and the Grenadines
Trinidad and Tobago
Turks and Caicos

<table>
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<tr>
<th>2018-2020</th>
<th>2021-Present</th>
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<tbody>
<tr>
<td>TAT</td>
<td>7-14 days</td>
</tr>
<tr>
<td>Sample Throughput</td>
<td>30 (-18hrs)</td>
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<tr>
<td>Number of Organisms</td>
<td>1000+</td>
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<tr>
<td>AMR Resistance Profile</td>
<td>CLSI Update 2018</td>
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AMR SURVEILLANCE is part of Integrated Foodborne disease surveillance at CARPHA

- CARPHA: promoting the one health integrated approach, integrating epi, lab, env health and vert aspects of FBD surveillant since 2005
- CARPHA & PAHO: multiple regional cross-cutting workshops on integrative FBD & AMR
- Step-wise training of Caribbean countries in food safety with PAHO.
- Provisions of molecular testing for foodborne pathogen genotyping.
- Stakeholder mtgs to design and implement National Action Plans to address AMR.
- Governments and CARICOM Secretariat: collaboration between public health, laboratory, medicine, pharmacology, veterinary medicine, policy and agriculture.
- Countries are addressing gaps in their laboratory capacity and surveillance systems, to incorporate AMR genotyping and sequencing.
- Countries are developing Plans of Action for Treatments to comprehensively address drug resistance in HIV, Vector-borne diseases and foodborne disease bacteria
Proposed Integrated AMR surveillance

PAHO

CARPHA

Sub- Regional Coordinating Center

Regional Coordinating Center

National Coordinating Center

Hospital labs

Private Clinical labs

Veterinary labs

Food labs

Sentinel sites

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Challenges

• Political will support
• Coordination, Communication, data sharing
• Sectoral and agency integration
• Funding & HR
• Prioritization of AMR
• Data on impact and burden
• Establishing regional AMR surveillance