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U.S. President's Emergency Plan for AIDS Relief

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# **PEPFAR Experience of the HIV Laboratory Network**

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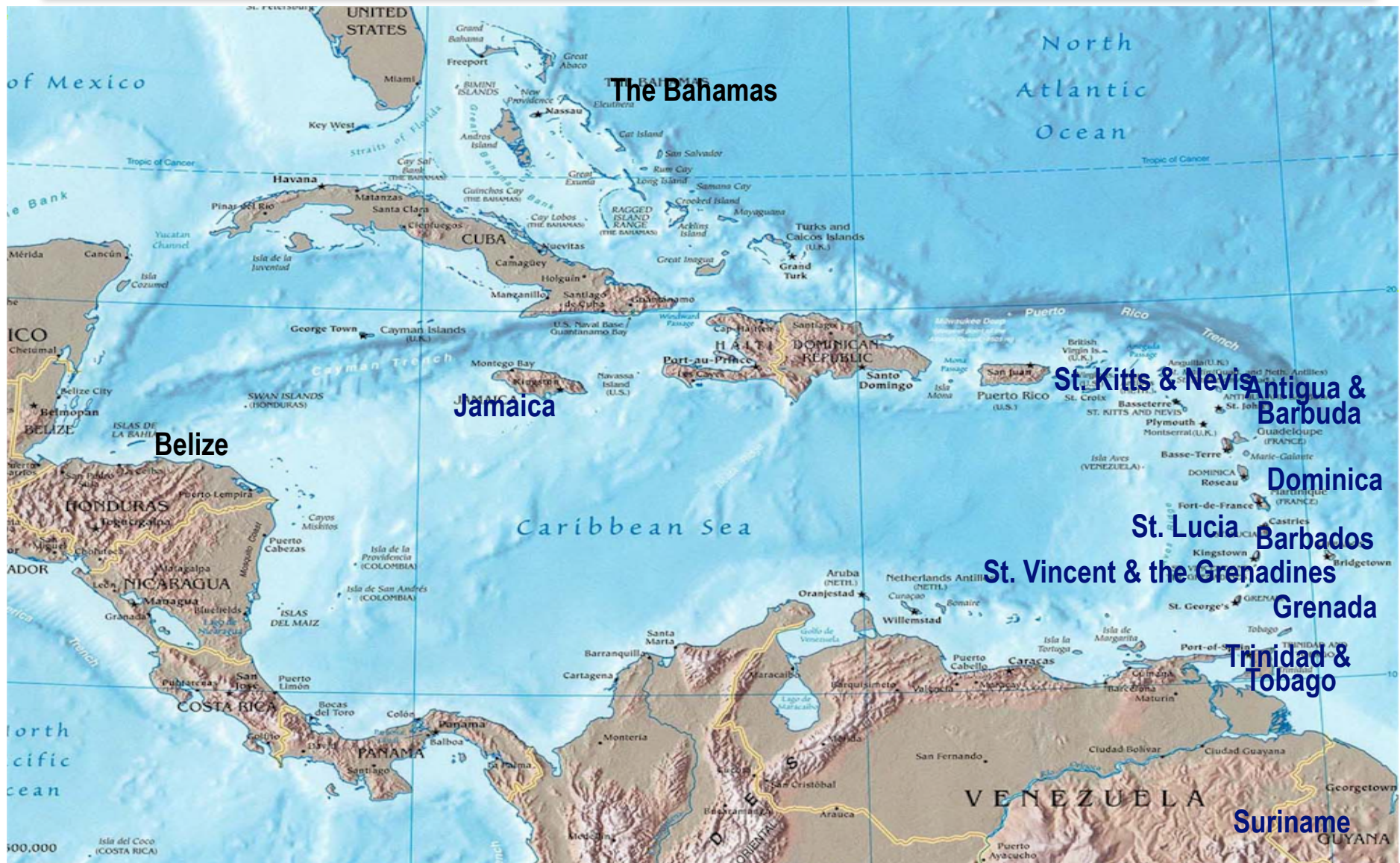
CDC Caribbean Regional Office

Barbados



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# Countries covered by Caribbean PEPFAR Portfolio





## BACKGROUND

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- **Laboratory needs assessment conducted in 12 countries**
- **Developed a Partnership Framework and the Partnership Framework Implementation Plan (PFIP)**
- **Developed the Regional Operational Plan for working with the countries**
- **PEPFAR Lab Implementing partners are PAHO, AFENET, SCMS and Country Ministry of Health.**



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## Laboratory Objectives

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- **To support Caribbean-led reorganisation to create a sustainable regional laboratory network**
- **To assist Governments and Regional Public Health agencies to improve the scope and quality of HIV Diagnostic and Laboratory services and systems**
- **To align with the regional goals and vision of the PanCaribbean Partnership against HIV and AIDS (PANCAP), Pan American Health Organisation (PAHO) and Caribbean Public Health Agency (CARPHA) to ensure eventual ownership and sustainability**



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# PEPFAR Laboratory Strengthening Initiatives

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- **Support countries to develop National Laboratory Strategic plans**
- **Implement Laboratory Information Systems (LIS)**
- **Implement External Quality Assessment Programs (EQA)**
- **Develop Procurement plans and Equipment service contracts**
- **Support countries to sustain HIV Diagnostic services (serology, DNA PCR)**
- **Conduct Biosafety and QA Training**
- **Support countries to sustain clinical laboratory monitoring platforms (CD4, Haem, Chem, viral load, TB, HIV drug resistance, OIs)**
- **Implement QMS and prepare for Accreditation**





# Why Lab Network

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- **Lab capacity weak in some countries (Lack of infrastructure, manpower, resources, low sample number)**
- **Each island cannot support testing for molecular assays (DNA PCR, VL, HIV drug resistance, other emerging diseases)**
- **Each island cannot develop comprehensive EQA support system and trainings**
- **Not possible for tiered reference systems in each country**



# Why Lab Network

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- **Need for labs to have back-up systems**
- **Need for labs to have referral systems**
- **Transport network available to support a Regional Referral and Back-up System**
- **There are other related regional structures and common associations on which to build this relationship (CARICOM, PANCAP, CARPHA)**



## Requirements for Lab Network

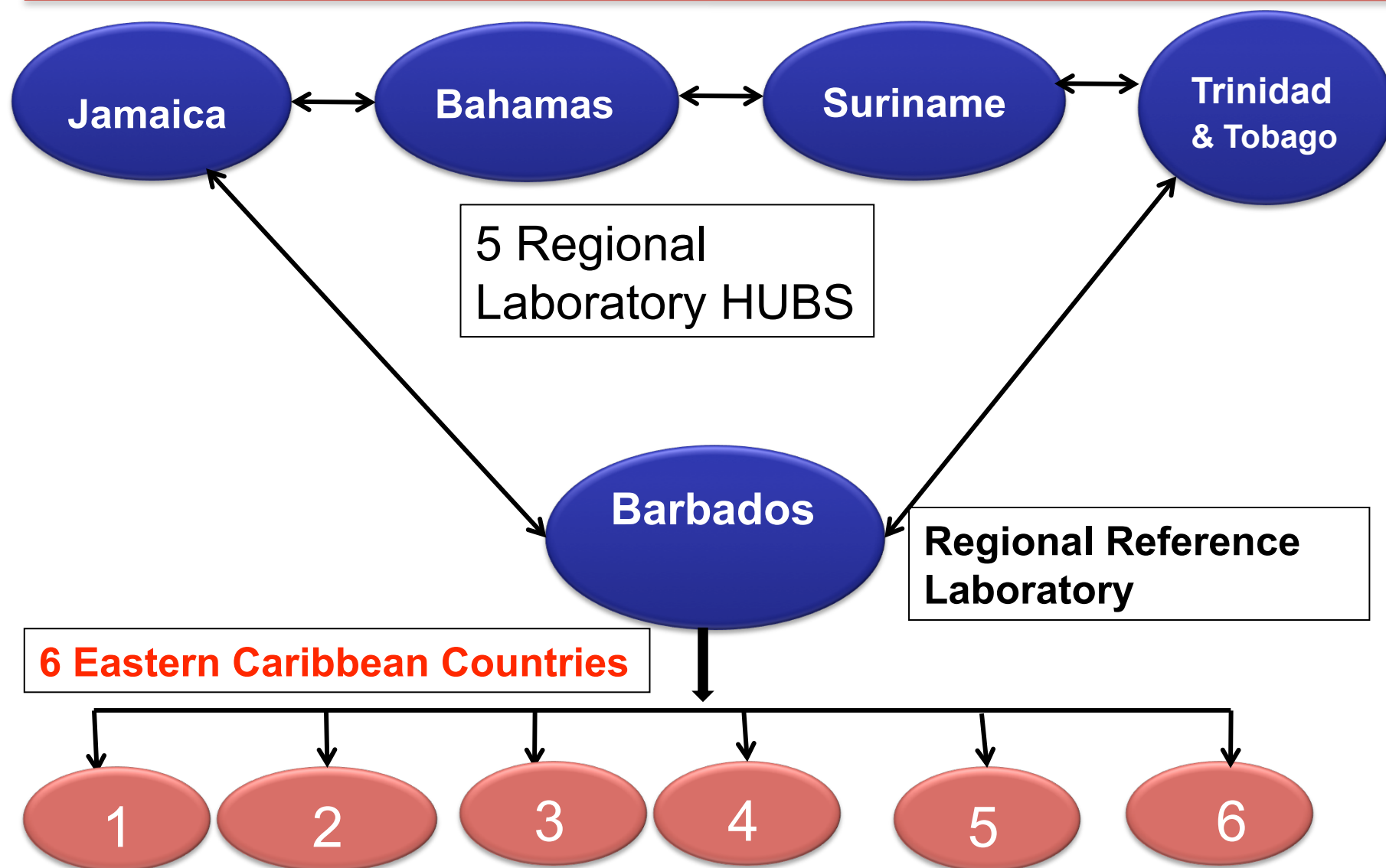
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- **In country assessment to know where the skills and deficiencies are located**
- **Willingness and buy-in from all countries to be involved in the network**
- **Support from other regional partners**
- **Clearly defined working/logistic requirements to outline contributions from all parties:**
  - **Personnel, transportation/shipment, custom clearance/cold chain, biosafety issues, turn-around-time, Storage**





# Proposed Caribbean Regional Lab Referral & Back-up System





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## Regional Referral System

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- **Barbados – PEPFAR supporting the construction of National Reference Lab that will also support 6 Eastern Caribbean states**
- **Jamaica, Bahamas, Suriname, Trinidad and Tobago – supporting molecular platform**
- **HUBs will back-up each other and other countries**
- **All 12 countries have capacity for CD4, Haem, Chemistry and other routine testing**
- **All 12 countries have access to EQA (Trained in Dried Tube specimen Technology, Digital PT)**



# Regional Reference Laboratory Services

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- DNA PCR (Barbados)
- Viral Load (Barbados)
- HIV Drug Resistance (Barbados, Jamaica)
- STI Diagnosis (Jamaica) (**Not yet functional**)
- TB Culture (**????**)
- QA/QC support and Training (Barbados)

Strengthening Integrated Lab systems for:

- Other emerging complex diseases (e.g. H1N1)



# Challenges

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- **Poor packaging and shipment of samples**
- **Poor sample collection (training need)**
- **Long turn-around-time**
- **Need for improved communication between labs**
- **Need for prompt payments to lab providing services**
- **Sustainability beyond (PEPFAR, PAHO, GF, Clinton Foundation)**



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## Thank You

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