

# **TELEMEDICINE PROJECT IN GUYANA**

# Objectives

- Assess the need for telemedicine in Guyana
- Describe the telemedicine project design and timelines
- Discuss the outcomes of the implementation phase
- Discuss future directions

# **Key issues identified**

# 1. Human Resources



## 2. Access to Care



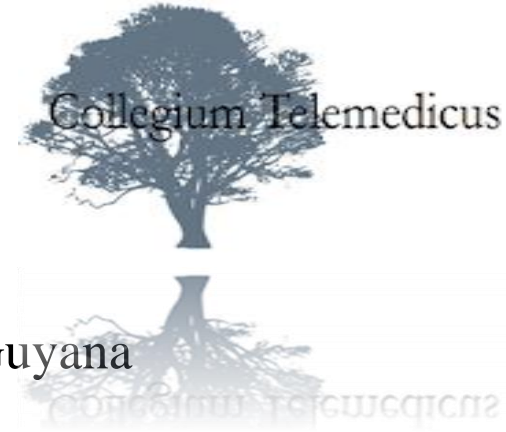
### 3. Program Curriculum

Systemic assessment of Residency Curriculum was done in 2017



Revealed deficiencies in teaching and assessment of critical thinking and clinical reasoning.  
Lack of Sufficient full time IM faculty on-site

# Objectives for Telemedicine Implementation



1. Enable access to and decentralize IM expertise throughout Guyana
2. Provide GPHC Internal Medicine Senior Registrars and Residents opportunities to discuss and review patient cases with McMaster University Subspecialist faculty
3. Via Case discussion and feedback on case presentation with residents, consulting faculty to identify learning objectives to encourage critical thinking and clinical reasoning skills.



Residents/Registrars send non-urgent queries to specialist  
At McMaster University.

Web- based Telemedicine  
Provider

Includes details such as :  
HPI  
Investigations  
Images  
Assessment and plan  
Clinical Question for Specialist



# Primary Stakeholders



MoPH



GPHC



PAHO



McMaster University

# Project Design And Timelines For Telemedicine Project



**Protocol, Agreements and MOU Aug 2017**

**Needs assessment with Regional Hospitals - Sept 2017**

**Pilot Phase with training (GPHC IM) - Oct 2017**

**Pilot Phase- GPHC IM Residents consulting with McMaster Subspecialists (Oct 2017- Aug 2018)**

**First Focus Group March 2018**

**Second Focus Group in July 2018**

**Second Phase- expansion to regional hospitals/ health centres - Nov 2018**

# Focus group discussion

## PROS

- Improve management of complex patients
- Enhance critical thinking when preparing for submission
- Access to specialists with evidence-based expertise
- Learn from specialists' clinical approach and reasoning
- Organize clinical presentation through informal feedback

## CONS

- Delayed responses – ***improved after second focus group***
- Time-consuming
- Technical issues with web-based interface- ***improved with app implementation and improved WiFi accessibility at GPHC***

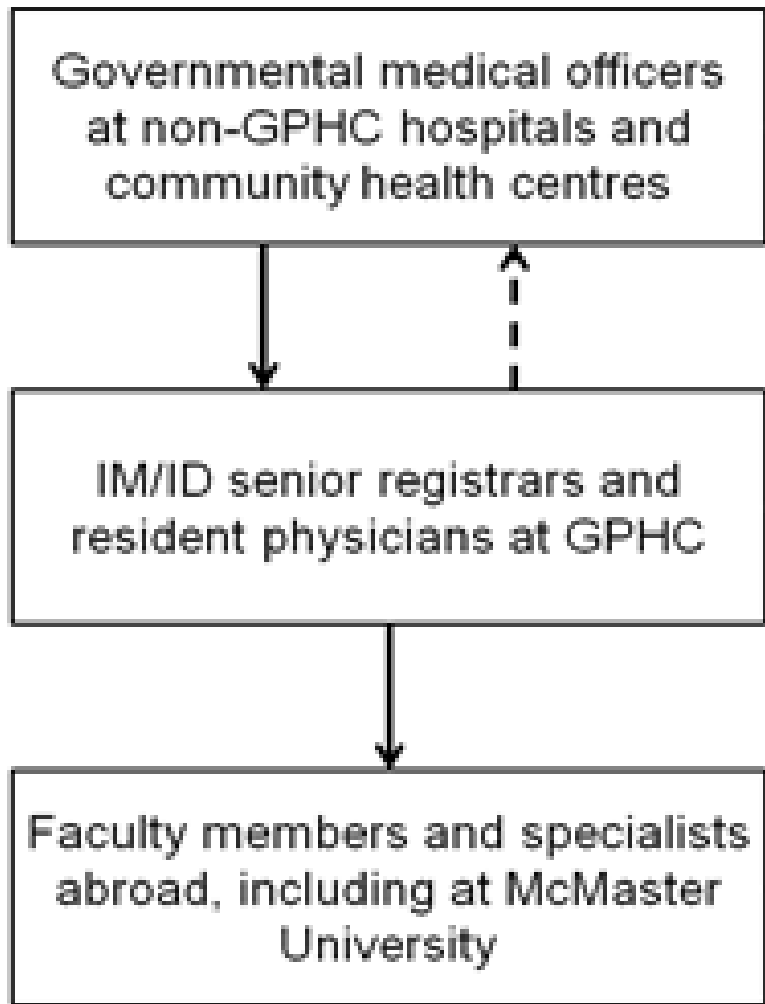
# Future Directions

## Decentralize IM expertise and expand to regional hospitals

Partner with MOPH and PAHO to acquire and install necessary infrastructure.

Develop national consultation services linking RH providers to GPHC IM specialties.





*Flow diagram depicting clinical query (solid arrows) and response (dashed arrows) pathways.*

## **Experience so far**

1. Very user friendly
1. No great financial investment
1. Can be used on desktop as well as on androids
1. Internet access is essential for the telemedicine project
1. Physician buy-in to the use of telemedicine is key for the development and growth of telemedicine

# Limitations at GPHC

1. Inadequate access to the internet
2. Lack of use by physicians mainly due to time
3. Delayed response by consultants.
4. Only non-urgent cases were sent

# Limitations at the regional hospitals

1. Some of the regional hospitals visited lack the infrastructure for setting up telemedicine, including internet access
2. Using telemedicine would be new to some physicians and training is needed
3. Physicians motivation to use telemedicine- most persons prefer to make a phone call



# Recommendations

- Identify potential stakeholders and develop a MOU
- Feasibility studies/ needs assessment- important particularly in remote areas of the country
- Train physicians to use the platform and encourage participation.
- Consider setting up a system that can allow to review both urgent and non-urgent cases.

# References/ Images

- World Health Organization. World Health Statistics 2015. [http://apps.who.int/iris/bitstream/10665/170250/1/9789240694439\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/170250/1/9789240694439_eng.pdf), accessed Dec 19, 2017.
- Ministry of Public Health. Regional Health Facilities. <http://www.health.gov.gy/index.php/programmes/rhst>, accessed Apr 25, 2018.
- Map of Guyana Regions. <https://guyaneseonline.files.wordpress.com/2016/09/map-of-guyana-regions.gif>, accessed Apr 25, 2018.
- Guyana Map. <http://guyanamap.facts.co/guyanamapof/guyanamap.php>, accessed Apr 25, 2018.
- Brainstorming. Langevin Learning Services. <http://getmespark.com/wp-content/uploads/brainstorming.png>, accessed Apr 25, 2018.

# Thank you!

Questions?