The Guyana Diabetes Care Project: A country’s response to T2 DM

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Guyana Diabetes Care Project

- 2016-2019 {WDF – U of T- MOPH: $303,821USD (WDF); Total cash $453,000USD}, Technical Cooperation from PAHO/WHO Guyana

- Based on 3 adapted level 2 Diabetes intervention in DCP2 (Narayan 2006): eye care, antenatal care, health promotion and awareness

- Partners: Ministry of Public Health, GPHC, University of Toronto, Orbis International, EyePACS, WONDOOR

- Multi-component
  - 100: Screening and treatment for diabetic retinopathy
  - 200: Screening and treatment for diabetes in pregnancy
  - 300: Support for Ministry public awareness activities; development and validation of Guyanese diabetes risk score
  - 400: Support for re-development of Guyana Health Information System
  - 500: Administrative and financial management
100: Screening and treatment diabetic retinopathy (DR)

- **Innovative service in public health system – partner with Orbis & EyePACS**

- **Equipment**
  - 2 retinal cameras – established DR centre GPHC
  - Laser and associated equipment for treatment

- **Training and human resources**
  - Trained 3 full time optometrists; 2 ophthalmology nurses
  - In house training module developed and implemented
  - Trained 17 Ophthalmologists & 29 nurses in diagnosis and treatment
  - Trained 21 MDs, 32 nurses in primary care of the importance of referring PWD for DR screening
  - 9 Biomedical technicians trained

- **Public awareness**
  - 15,000 flyers distributed; TV ad produced; banners; TV shows; 4 outreaches (1080 had visual screening); WDD & WSD participations; Caribbean presentations (OSWI)

- **Monitoring and evaluation**
  - GHIS module created – legacy EyePACS data migrated
  - Client satisfaction survey begins
Screening and treatment of diabetes in pregnancy

- **New service**: sites - GPHC & 2 HC's – partnered with WONDOOR; IDF WINGS protocol & metformin as alternative to insulin only Rx for GDM

- **Human resources**
  - 15 Ob/GYN residents; 34 Obstetrical nurses
  - Permanent phlebotomist and clerk hired

- **Public awareness**
  - 290 text messages as reminders for women with GDM
  - GDM booklet to mothers with chart to monitor BS (10/wk)
  - Banner, posters, outreaches, TV programmes, health day celebrations

- **Monitoring and evaluation**
  - GHIS module – 33 patients entered into database
300: Development Guyanese diabetes risk score (GDRS)

- Based on IDF recommended guidelines for 2 stage detection of undiagnosed diabetes
- Develop simple risk score
- Link with Guyana 2016 WHO-STEPS survey – randomized national sample
  - Inclusion HbA1c in STEPS – 805 persons with either FBS or HbA1c linked to STEPS questions
  - November 2017 – analysed multivariable logistic regression models for selected STEPS variables – OR: 0.829
- GDRS – 8 questions: hx high blood sugar, on treatment, age, gender, family history, ethnicity, blood pressure, BMI
- Currently completing external validation via collaboration with local ongoing outreach and research programs: HbA1c for all as measure of dysglycemia
400: Support for re-development of Guyana Health Information System (GHIS)

- 2016 – Ministry wishes to expand nascent GHIS into a web-based electronic medical record for national use. Meets project objectives
  - Hire software developer
  - Purchase server and cables
  - DR and Diabetes in pregnancy modules completed.
  - EyePACS legacy data incorporated
  - Diabetic foot centre module in process

**Potential Outcome:** Electronic NCDs registry