

# *The Guyana Diabetes Care Project: A country's response to T2 DM*



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## Guyana Diabetes Care Project

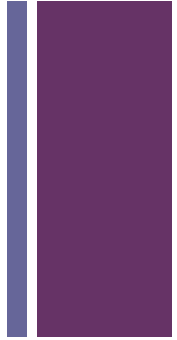
- 2016-2019 {WDF – U of T- MOPH: \$303,821USD (WDF); Total cash \$453,000USD}, Technical Cooperation from PAHO/WHO Guyana
- Based on 3 adapted **level 2** Diabetes intervention in DCP2 (Narayan 2006): **eye care, antenatal care, health promotion and awareness**
- **Partners:** Ministry of Public Health, 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





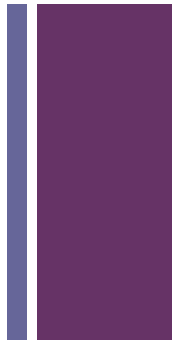
## 100: Screening and treatment diabetic retinopathy (DR)

- **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



## + 200: Screening and treatment of diabetes in pregnancy

- **New service:** sites - GPHC & 2 HCs – 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

