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## Prevalence of type 2 diabetes and among Jamaican Maroons: A genetic isolate

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Jamaican Maroons are isolated populations founded by descendants of West Africans who escaped slavery and established free communities in Jamaican mountains. Maroon communities were established before 1655. Moore Town is the largest Maroon settlement, approximately 240 households and 1200 individuals. Anecdotally, Maroon migrants have a high rate of T2D in Kingston. A pilot study of T2D was done in March-April 2016 to establish baseline data, collecting information about T2D. Female heads of household were assessed and asked whether T2D had been diagnosed in the interviewee or any family member. Analysis of the odds of having T2D indicated that first degree relative with T2D odds ratio (OR) was 1.11 (0.33-3.76,  $p=0.88$ ), diastolic blood pressure  $>90$  OR=4.20 (1.41-12.55,  $p<0.01$ ), and waist-hip ratio  $>0.85$  (Fisher's exact  $p<0.0001$ ). Age at menarche was lower among T2D women (mean=14.0, 95% CI: 13.6-14.3) vs. non-T2D women (mean=14.8, 95% CI: 14.4-15.2). Logistic regression analysis indicated T2D individuals had: high diastolic blood pressure (OR=29.3, 95% CI: 1.79-480.04,  $p<0.02$ ), high ( $>75$  BPM) heart rate (OR=25.0, 95% CI: 18.7-158.9,  $p<0.001$ ), age (OR=1.15, 95% CI: 1.06-1.25,  $p<0.001$ ), and earlier age at menarche (OR=0.23, 95% CI: 0.09-0.57,  $p<0.002$ ). Thus, women with T2D tended to be older, reach menarche earlier, and have: high waist:hip ratios, high heart rates, and elevated diastolic blood pressures compared to non-T2D. These findings are consistent with previously reported data except for earlier sexual maturation.

### Biography

Bert Little, Ph.D., Professor of Health Management and Systems Sciences, School of Public Health and Information Sciences, University of Louisville has an extensive educational background in analytics (mathematics, statistics, databases and probability theory) and population health (human biology, genetics, medicine, public health), and is a formally trained physical/biological anthropologist with extensive experience working with populations outside the US.

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