BETA HEMOLYTIC *STREPTOCOCCI* IN SCHOOLCHILDREN 5 – 15 YEARS OF AGE WITH AN EMPHASIS ON RHEUMATIC FEVER, IN THE TRI – ISLAND STATE OF GRENADA.

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Objective:
To determine the prevalence of, beta hemolytic *streptococci* in the pharyngeal region and antibodies to beta hemolytic *streptococci*, among schoolchildren 5 – 15 years of age in the tri – island state of Grenada and to treat the at risk population.

Design & Methods:
Blood samples and throat swabs were obtained from 1,388 school children, aged 5–15 years old, attending randomly selected schools in each parish of the tri-island state of Grenada. Serum samples were subjected to anti streptolysin O testing (ASOT) while throat swabs were cultured on sheep blood agar plates. The incidence of ARF for ten years retroactively was collected. A Rheumatic Fever clinic was created and medication was administered to positive cases.

Results:
The prevalence of positive throat swab was 15.4% (95% CI=13.4%-17.2%). The rate was highest in St. Patrick (21.8%) and lowest in Carriacou (5.7%). The prevalence of antibodies was 38.6% (95% CI=37.6%-42.8%). It was highest in St. Patrick (54.4%) and lowest in Petit Martinique (26.8%). In St. Patrick, males were significantly more likely than females to have a positive ASOT (p= 0.0084). In St. George's, males were significantly more likely than females to have a positive throat culture (p=0.0172). Thirty-four per cent of the positive cultures were type A, 10% were type C and 56% type G. The number of index Acute rheumatic fever cases dropped following the intervention from 35 cases annually to zero cases per year.

Conclusions:
The data illustrates that there is a high prevalence of beta hemolytic *streptococci* in school children in certain parishes in Grenada. Public health measures should address prevention and control of beta hemolytic streptococcal infection in order to prevent the possible sequelae of this disease. In this instance a multifaceted approach has displayed that the disease is amenable to perturbation.