

Title: A model for **sub-national population projection** in Trinidad
Objective: To develop a model to project the non-institutional population of the South-West Regional Health Authority **from base year 2011 to target year 2025.**

Design and Methods: A combination of **small-area population projection techniques were used.** Population and Housing Census data from the Central Statistical Office for the SWRHA for the years 1990, 2000 and 2011 were used. First, the shift-share ratio technique was applied where each five-year age-group was calculated as a percentage or 'share' of the total Trinidad and Tobago population for each year. Second, each 'share' was plotted and the best-fitting mathematical functional forms were selected based on a high R^2 ($R^2 \geq 0.60$) paired with the plausibility of the trend. Third, the functional forms were used to extrapolate 'shares' for target years 2015, 2020 and 2025. Fourth, these 'shares' were applied to four (4) assumptions of the future population: high variant, medium variant, low variant and constant variant as supplied in the independent United Nations World Population Prospects-Revision 2015 for Trinidad and Tobago.

Results: The **model projected an overall growth** for all variants where the medium variant value for males and females in 2025 was 292,911 and 292,030, respectively. The estimated **median age is projected to increase** for both males and females with the estimated median age of males increasing to 38 years and the estimated median age of females increasing to 40 years in 2025. A **reduction in the 0-24 year age-group is also projected.**

Conclusion: The model projected a **growth of the aging population**

(65+) for the SWRHA Region which thus influences the healthcare needs of the population.

