Sir Alister McIntyre Distinguished Awardee for Pioneering Epidemiological Studies throughout the Caribbean

Rainford Wilks

Chair: ***Hector Wheeler***

Diabetes Epidemiology in Jamaica and the Caribbean

Rainford Wilks

The chronic non-communicable diseases (CNCDs) are the major causes of adult mortality in the Caribbean, accounting for over 60% of deaths. Diabetes mellitus (DM), cardiovascular diseases (CVDs), cancers and pulmonary diseases are the major contributors to this burden and DM is a major risk factor for CVDs; thus the contribution of DM to the health burden is significant. The Caribbean has experienced a near five-fold increase in DM prevalence over the last five decades. In Jamaica, as elsewhere, DM is directly associated with lower education, lower household income and lack of health insurance, in addition to obesity and low levels of physical activity. Despite high levels of awareness and exposure to treatment, control is poor in almost 60% and complications including retinopathy (78%) and lower extremity ulceration (16%) have been reported in the Caribbean. The annual economic cost of DM is estimated as high as US$409M in Jamaica and up to 5% of gross domestic product in Trinidad and Tobago.

Our challenges in managing the DM burden include reduction of risk factor burden, early detection, effective management and prevention of complications. All these aspects would benefit from greater empowerment of patients, families and their communities as well as the support of non-health sector partners from the whole society.

Systematic reviews of the literature confirm that effective interventions, which are supported by intersectoral and multi-component cooperation, feature individualized information on benefits and costs of behaviour change; support and formulate specific, measureable, achievable, relevant and timely behavioural goals; prompt review and adjustment of goals, using social support and time management skills; generalize target behaviours (*eg* more walking, less reliance on motorized transport); provide practical information on how to increase activity and improve diet; provide follow-up prompts to maintain adherence (*eg* telephone calls, SMS); include task shifting of primary care duties to community health-workers to support adherence; include professional training to improve treatment fidelity; are adapted to the social, cultural and environmental context and use of existing community-based social structures, *eg* churches, reduces barriers to implementation; and involve stakeholders, including policy-makers, health-workers, patients and families are the most successful. These systematic reviews also show a paucity of studies to test this approach in low- and middle-income countries (LMICs).

We propose a concerted effort by LMICs to evaluate this approach, especially in the context of their history of successes in overcoming the infectious disease and undernutrition burdens of the previous epoch, using similar approaches.

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