The TMRI held its Triennial Scientific Meeting from July 28-30, 2008. This meeting showcased and evaluated work done during the first half of the ‘2005-2010’ academic quinquennium. Researchers from each of the Institute’s 4 Units, namely the Mona Campus Jamaica-based Tropical Metabolism Research Unit (TMRU), Epidemiology Research unit (ERU), Sickle Cell Unit (SCU); and the Barbados-based Chronic Disease Research Centre (CDRC) made twenty oral presentations highlighting key components of the Institute’s Triennial Report.

This issue of TMRI FOCUS features two of these presentations, namely Caregiver Training and Early Stimulation for Young Children in Residential Care Facilities and the Barbados National Registry for Chronic Non-Communicable Diseases (BNR).

The final day of the conference featured a public forum held at the Main Medical Lecture Theatre UWI. In attendance were representatives from the UWI leadership, Ministry of Health, Research Funding Agencies,

The Child Development Research Group within the Epidemiology Research Unit presented the preliminary findings on an intervention it conducted in providing caregiver training at residential child care facilities, at the recently held Triennial Scientific Meeting.

The intervention’s aim was to improve the development of young children in child care facilities by training their caregivers in the principles of good care giving interactions and early childhood stimulation.
The World Health Organization (WHO) projected that cancer, ischaemic heart disease and stroke will be the top three causes of death globally this century. Chronic diseases are indeed now the leading causes of death in most developed nations, and this is also increasingly the case elsewhere, including the 33 nations in the region of Latin America and the Caribbean (LAC). There are eight Caribbean countries among the 10 LAC nations with the highest mortality rates from non-communicable diseases (NCDs); of these Barbados (with an overall NCD mortality rate of 698/100 000) ranks third.

Earlier this year, the Chronic Disease Research Centre (CDRC) implemented the Barbados National Registry for Chronic Non-Communicable Diseases (BNR), in collaboration with the Ministry of Health and with 4 years of initial funding from the European Union. The main objective of the registry is to collect timely and accurate national data on the occurrence of three NCDs (stroke, acute coronary events and cancer) in order to contribute to the prevention, control and treatment of these diseases in Barbados.

The BNR core team comprises registry co-ordinators, data abstraction, entry and management staff, with the support of the CDRC epidemiology and statistics personnel, and the benefit of guidance from clinical directors. Additional support and guidance are provided by committees (e.g. stakeholders, scientific advisors, etc.).

The BNR – Stroke was the first registry to “go live” and will be followed towards the end of 2008 by the BNR – ACE (acute coronary events) and next year by the BNR – Cancer.

The BNR – Stroke methodology follows the WHO – Steps Stroke Surveillance model. Information is collected on all hospitalised patients (Step 1), all stroke-related deaths in the community (Step 2) and all stroke events occurring in the community which have not resulted in hospitalisation (Step 3). There is a variety of data sources, from hospital wards and emergency services to polyclinics, diagnostic facilities, rehabilitation therapists and nursing homes across the island.

A combination of data collection techniques are used, from active (calling polyclinics and private physicians, visiting wards in the main public hospital) to passive (receipt of notification forms from some physicians and diagnostic services, and even telephone notifications from patients themselves or their relatives). To date, details on almost 90 stroke patients have been collected by the BNR team for July and August 2008.

In addition to providing a baseline for incidence and mortality data for Barbados, the BNR can be used as a springboard for NCD research projects. Funding has been received for studies to estimate annual healthcare costs for stroke, for mapping incidence and post-disease survival for the three NCDs covered by the BNR, and for estimating physical, social and psychological well-being in cancer and stroke survivors.

### CDRC starts the **BARBADOS NATIONAL REGISTRY** for **CHRONIC NON-COMMUNICABLE DISEASES**

The meeting was very successful and well received by the stakeholders. The TMRI team looks forward to completing the research agenda for the quinquennium and beyond, as we continue to make meaningful contributions to the local and international scientific community.
METHODS

Six residential child care facilities were selected, paired by size and randomly assigned to either intervention or control groups. A total of 78 children aged 6 to 42 months were selected. Children with known physical or mental disabilities which could affect development were excluded.

The number and quality of interactions between the caregivers and children were recorded using an observation instrument and a questionnaire on caregiving practices was administered to the caregivers. The children’s heights and weights were measured and their development assessed with the Griffiths Mental Development Scales, at baseline and after nine months of intervention.

The intervention comprised ten training workshops with the caregivers over a six month period. Practices taught in the workshops were reinforced by a community health aide who visited the homes and demonstrated early stimulation materials and activities to the caregivers and suggested ways they could incorporate them into their daily routine.

KEY RESULTS

At baseline

- The mean age of the children was 23 months.
- The mean developmental quotient (DQ) was 79.8±14.6 points.
- Language development was lower than expected with a hearing and speech quotient of 70.8±17.5. The other subscales were locomotor 88.8±17.2, hand & eye 82.5±16.7, and performance 76.5±16.7.
- Observations of caregiver interactions showed that they spoke very little to the children and mostly gave commands.
- Caregivers displayed few positive behaviours such as praising, showing love or playing with the children. Occasional scolding, slaps and restraints were observed.
- 16.5% of children were stunted (short for age) and 18% were underweight. These rates are four to five times higher than the national average.

After intervention

- The caregivers’ knowledge scores did not change but there was improvement in their practice scores i.e. they talked to and praised the children more.
- Although there was no significant improvement in the global DQ the children’s language improved with a benefit of six points which approached statistical significance p= 0.09.

CONCLUSIONS

- Children in child care facilities are developing poorly and would benefit from an enriched environment with more consistent stimulation.
- The intervention improved caregiver practices.
- More substantial benefits to the children’s development may take longer to achieve.

The Sickle Cell Unit will be hosting a conference under the theme "Managing Sickle Cell Disease: The Chronic Care Model", from October 30-31, 2008. The opening ceremony on Oct. 30 will be held at the Mona Visitor’s Lodge, UWI, where the local clinical guidelines for the management of Sickle Cell Disease will be launched. Various aspects of the disease will be discussed at a day-long symposium on Friday Oct. 31 at the Main Medical Lecture Theatre, UHWI. Guest speaker for the event is Dr. Russell Ware, Head of Haematology at St. Jude Children's Research Hospital in Memphis, USA. Former Director of the Unit, Prof. Graham Sergeant will be honored for his decades of service to patients with Sickle Cell Disease in Jamaica.
Recent Research Publications ……


Congratulations …..

to Professor Anselm Hennis who was promoted to the level of Professor on May 18, 2008. Professor Hennis is the Director of the Chronic Disease Research Centre in Barbados. We convey our best wishes to him for continued success.