

# Health Services News

a publication of the Cayman Islands Health Services Authority

March 2007

## Leading International Cardiologist joins the HSA Team

Leading cardiologist Dr. Kevin Coy, has joined the Health Services Authority as a visiting specialist.

Dr. Coy who is an international specialist in cardiac catheterization, pacemaker implantation and other heart and coronary artery diseases will operate bi-weekly clinics at the Cayman Islands Hospital. Clinics are by appointments only can be booked by contacting the Hospital at 244-2530-1.

Dr. Coy worked for many years in the Cayman Islands and elsewhere in the Caribbean establishing Cardiology programs in Nassau, Bahamas where he performed the first cardiac catheterization, and developed highly successful cardiac angioplasty programs at the University Hospital in Kingston, Jamaica, Barbados and the Dutch Caribbean island of Curacao.

He is a Certified Interventional Cardiologist by the American Board of Physicians and is one of the leading cardiologists in South Florida operating his own private practice – Miami International Cardiology Consultants.

Dr. Coy is a graduate of the University Florida Medical School where he pursued his initial training and did completed post graduate studies specializing as a cardiologist at the University of California and San Francisco Heart Institute.

In announcing the appointment HSA Medical Director, Dr. Tamer Tadros says “the addition of Dr. Coy to the HSA team, with his vast experience and skills as a cardiac specialist will allow the HSA to further broaden the range of cardiology services on island.”

Dr. Tadros also highlighted additional benefit for patients including the convenience of having all their cardiac care from the advanced services of pacemaker and defibrillator implants to the more routine diagnostic testing and treatments done here on island which reduces the many incidental expenses of offshore medical care as well as the emotional trauma that many patients undergo of being away from their families while they are off-island for diagnosis and treatment.

The Health Services provides the most comprehensive range of cardiology services on island from diagnostic and therapeutic services including echocardiography, ECG, 24-hour ECG monitoring and ambulatory blood pressure monitoring, transoesophageal echocardiography, EKG, cardiac ultrasound, stress testing and holter monitoring for the evaluation of heart rhythm to pacemaker insertion and our newest service, transoesophageal echocardiograph.

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# From the Acting Chief Executive Officer

I am pleased to see the return of our monthly staff publication - Health Services News - following brief hiatus. This publication serves an integral role in our efforts to further enhance communication and feedback throughout the organization, our patients and other clients and must therefore be sustained.

Since the last issue there have been many developments within the service and I'd like to take the opportunity to speak to a few of these in this publication.

The Tobacco Bill which was recently tabled by the Minister of Health, Hon. Anthony Eden, proposed stringent rules which would ban smoking in all public places, including the Cayman Islands Hospital.

While, undoubtedly, this will have a significant impact on staff and patients, the Health Services as the leading healthcare provider in these islands fully supports the provisions in the legislation.

Statistics and medical evidence have long shown the devastating effects of tobacco on personal health and its related healthcare costs.

Recognising, however, the impact that this legislation, if passed in its current form, is likely to have on patients and staff, the Health Services will be looking at several initiatives to help those who desire to quit smoking as well as those who may have difficulties in quitting the habit.

On another health related matter, I wish to make special mention of Mr. Royce Ebanks on his personal quest to improve his health and well being whilst serving as a motivation for all of us. His story is featured in this publication and I encourage everyone to read it, as it no doubt will offer hope, inspiration and courage to many of us.

Royce's initiative has led me to encourage all HSA employees to join in a global initiative being launched on April 25, 2007 to encourage people everywhere to start walking. It has been proven scientifically that taking just 30 minutes each day to walk will help us live longer. In fact, studies show that just one hour of vigorous exercise will increase your life expectancy by two hours. It makes sense to Walk More and Eat Well to Live Longer. More information on this initiative is also in the pages of this newsletter.

At the beginning of this year I shared with you some broad goals

and objectives which we have undertaken for this year. Already we are making progress on several of these, including the Employee of the Month Awards. I pause to congratulate Nick Smith as the first recipient of this award in January and I encourage all employees, patients, visitors and customers to nominate individuals who make a difference, who go that extra mile to make a real difference or a team who are committed to improving the service.

The response to the SMART Ideas project was overwhelming with many ideas put forward to improve the service. While many of the proposals offered innovative suggestions we could only take on two projects for this year. These will be shared with everyone at our general staff meeting on March 28.

Other initiatives which are on-going include the Job Evaluation exercise which will result in the development of a proper salary structure for all categories of employees within the services, and benchmarked against international industry scales.

A broad-based committee has been working assiduously on developing and reviewing a comprehensive set of organizational policies that establishes clear expectations, guidelines and standards of practices.

I will provide further updates on these issues in future newsletters and other channels of communication.

I am overwhelmed by the outpouring of support from many of you for our colleague Pauline Ffrench in her recent misfortune. We want to continue to show the true spirit of caring that exists among us in helping her rebuild her life.

Its times like these that make me proud to be part of the HSA family and all of you that make this team.

Lizzette Yearwood  
Acting Chief Executive Officer

# Tough new legislation proposes ban on cigarette smoking in all public places in hospital

Tough new rules that would ban smoking in all public indoor places in the Cayman Islands has been proposed by Health Minister, Hon. Anthony Eden as part of a bill for a law to regulate the labelling, promotion, sale and distribution of tobacco products.

Under the bill, smoking is proposed to be banned throughout indoor public places and also on outdoor spaces that are covered by a roof, such as restaurant balconies. If the bill is enacted in its present form, cigar bars will also be effectively outlawed.

The bill's chief aim is to reduce tobacco consumption with a three-pronged approach: protecting the public from smoke; protecting minors and non-smokers from efforts to encourage tobacco use; and to inform the public about the dangers of tobacco and second-hand smoke.

The bill also declares the government's non-smoking policy, and seeks to minimize local tobacco promotions.

"The broad objective of the draft Tobacco Bill is to protect the health and well-being of the people of these islands," Eden said.

The Tobacco Steering Committee, which helped draft the bill, was headed by the Medical Officer of Health, Dr Kiran Kumar, and contained representatives from health groups such as the Cayman Islands Cancer Society as well as local businesses.

During its deliberations, the group examined legislation from Canada, the US, the Caribbean and the UK.

"The success of this legislation will depend on the public's participation in the consultation process, so I want to encourage everyone to become familiar with the draft bill and express their views," said Eden.

According to UN statistics, tobacco kills five million people annually, while damaging health and economic productivity and subjecting millions to second-hand smoke, especially within families.

In 2003, the World Health Organisation unanimously adopted the Framework Convention on Tobacco Control. At the time, 168 countries signed the framework, while 144 have become parties to the actual convention.

The convention limits the production, sale, distribution and advertisement of tobacco, taxation, and government policies towards tobacco. Requirements for signatories include banning tobacco advertising and the sale of tobacco both to and by minors; and restricting smoking in public places, particularly commercial establishments.

## WHY GO SMOKE-FREE?

Because...

- Second-hand tobacco smoke kills and causes serious illnesses.
- 100% smoke-free environments fully protect workers and the public from the serious harmful effects of tobacco smoke.
- The right to clean air, free from tobacco smoke, is a human right.
- Most people in the world are non-smokers and have a right not to be exposed to other people's smoke.
- Surveys show that smoking bans are widely supported by both smokers and non-smokers.
- Smoke-free environments are good for business, as families with children, most non-smokers and even smokers often prefer to go to smoke-free places.
- Smoke-free environments provide the many smokers who want to quit with a strong incentive to cut down or stop smoking altogether.
- Smoke-free environments help prevent people – especially the young – from starting to smoke.
- Smoke-free environments cost little and they work!

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# Staff Awards for Excellence

- *Do you know someone who has gone out of their way to help you?*
- *Work in a new and innovative way to improve patient care?*
- *Helped to improve the lives of our staff*
- *Rendered exceptional service to the public which has strengthened the image of the HSA?*

These are just some of the things which the Health Services Employee of the Month Awards scheme is designed to celebrate. The scheme, designed to reflect the caliber of the teams and individuals who work within the HSA, will show the high regard in which our staff are held by their colleagues, patients and customers. This is your chance to recognize their hard work and nominate them for an award.

We would like to invite staff, patients, visitors and customers to nominate individuals who make a difference, who goes that extra mile to make a real difference or a team who are committed to improving the service.

Employees can be nominated based on the following:

- **Team Award:** - *a team that has worked together to improve the quality and standard of patient care.*
- **Employee Award:** - *the member of staff who is felt to have worked above and beyond the call of duty to deliver patient care; inspired or lead others to achieve specific goals and objectives; inspired original thinking that has led to improvements for staff and patients.*

Nominations can be submitted by patients, staff, visitors or customers on the prescribed nomination form which is available on the L:Drive, Human Resources; the front desk in Administration or the Patient Services Representative.

Completed application forms must reach the HR Department no later than the 2<sup>nd</sup> of each month.

## Help us to reward and celebrate Employee Excellence

# HSA prepares for new health information technology upgrade

Over the weekend of February 2, 2007, HSA successfully converted to the Cerner Remote Host Option. This conversion means that the servers (large computers), which are running the Cerner system, are now located in Kansas City, Missouri (USA). Previously, these large computers were housed at the hospital, and managed by the HSA IT analysts and HSA technicians. The expected benefits from this change are; enhanced system stability, enhanced disaster redundancy as the equipment is no longer in the "hurricane belt" when it was located in the Caribbean and increased system response time. This change will also allow the analysts time to focus on further development of the Cerner system.

Where we are now:

Currently, the IT analysts are preparing to upgrade the Cerner system software from version 7.8 to version M2005.02. The upgrade go-live, scheduled for June 16, 2007, will enhance the functionality of the Cerner system. This will enable the IT analysts to develop additional system features and abilities, further enhancing the tools within the Cerner system. Overall, this will help the staff and physicians overcome challenges, improve work processes, ensure consistency, and provide the best patient care possible. This will also bring us that much closer to a complete Electronic Health Record (EHR).

Where we're going:

After the upgrade to the Cerner system, the IT analysts will focus on developing the additional functionality of the upgraded system. In addition, demonstrations of Cerner solutions, which have not yet been purchased, are being scheduled. The demonstrations will provide detailed information on the capability of the solutions, and the anticipated benefits.



## Project Manager joins team

As the HSA moves forward with the implementation of the required upgrades for the Cerner system and explores additional clinical applications, Mrs. Kathy Luke has joined the team as Project Manager.

In her new capacity Kathy will be responsible for providing

administrative decision making and coordination between HSA and Cerner on the implementation of the upgrade and facilitate a smooth transition between the systems at the go live date of June 6.

Kathy joins the team with more than 15 years experience in Information Technology management and a comprehensive knowledge of the Cerner System as Project Implementation Manager in other healthcare facilities. She also has an M.B.A. and B.A. Management and Organizational Development. Welcome aboard Kathy!

## Cayman to go smoke free

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### KEY OBJECTIVES OF THE LEGISLATION.

- Protection of minors and non smokers from the inducements to use tobacco
- Protection of the public from exposure to tobacco smoke
- Ensuring the public is adequately informed about the risk of tobacco use and the benefits of not smoking.
- Promoting a climate where non smoking and the absence of tobacco promotion are the norm.

### WHAT THE LEGISLATION MEANS FOR THE PEOPLE OF THE CAYMAN ISLANDS.

The people of the Cayman Islands can enjoy a smoke free environment that will reduce the risk of complications and death caused from smoke or second hand smoke.

### WHAT THE LEGISLATION WILL MEAN FOR THE BUSINESS OF THE CAYMAN ISLANDS.

Any business establishment wishing to import or sell tobacco products will have to apply for a licence which will be granted by the medical officer of health.

The sale of tobacco products to minors would be prohibited as would having minors sell or otherwise handle tobacco products.

### BUSINESSES WILL NOT BE AFFECTED.

Independent studies conducted in many countries across the world show that on average business remains the same or even increase after smoking bans.

# Tina McLean appointed new Patient Services Representative

The Health Services Authority has announced the appointment of Ms. Tina McLean as Patient Services Representative effective March 5, 2007.

In her new role, Ms. McLean will assist with all aspects of patient services, including:

- Hospital and medical appointments
- Physician Referrals
- Overseas visitor/patient travel arrangements
- Explanation of hospital policies and procedures
- Patient/visitor/ request for information
- Provide support/assistance during crisis
- Visit patients/families throughout the hospital
- Follow up on missing/damaged property
- Investigate patient complaints

Prior to her appointment, Ms. McLean served as a Nursing Supervisor at the Cayman Islands Hospital with overall responsibility for nursing and operations after regular office hours. Ms. McLean has more than twenty years of service at the HSA, and has also served as Nurse Manager for Accident and Emergency Unit in the past.

Commenting on her appointment, Acting Chief Executive Officer Mrs. Lizzette Yearwood said “with her years of diverse experience in many areas of the hospital, particularly with patient care, Ms. McLean is well suited for this role and we are truly excited to have her on our Patient Service Team.”

“Illness and hospitalization can be frightening and stressful for many individuals and our goal is to ensure that our patients have a caring and compassionate experience whilst here at the H.S.A.” continued Mrs. Yearwood.

Ms. McLean says she is excited about her new role and is confident that her years of experience in the nursing profession and her knowledge of the diverse nature of the local community are significant advantages, which will enhance her new role.

“I am always passionate about the rights of the patient and ensuring that all our clients have a positive experience while in our care” said Ms. McLean.

Ms. McLean is available to assist patients from Monday to Friday from 8:30 am to 5:00 pm on the first floor of the Health Services Complex. She can also be contacted via telephone on 244-2820.

The HSA welcomes comments from patients about their experiences at all its facilities and has mechanisms in place and to allow for feedback and resolution of complaints.

“Our goal is to provide the best healthcare and medical services possible. Our Patient Complaints & Compliments process is therefore designed to receive feedback from the patients who use our facilities and to better serve their needs” said Acting CEO, Mrs. Lizzette Yearwood.

“It is the policy of the HSA to address concerns or statements of dissatisfaction from our patients pertaining to any services rendered” she continued. Each concern is evaluated through a formal process and categorized according to the following groups:

- Confidentiality;
- Courtesy and respect;
- Clinical care and services;
- Standard or quality of care issues;
- Communication;
- Accessibility or availability;
- Waiting or response time;
- Facilities and operations; and
- Billing.

It is the HSA’s policy that all complaints are addressed in a timely manner and an appropriate intervention or response provided to the patient and/or family member. Additionally, the process records and tracks concerns to help identify and drive improvements in quality within the organization.

All patient concerns should be directed to the Patient Services Representative who will initiate an impartial investigation of the problem to understand the facts and circumstances of the concern and follow-up with the complainant via letter or telephone within 30 days.

# Staying healthy during the Flu Season

The Public Health Department is reporting an increase in flu-like cases in Grand Cayman, particularly among school children and is advising residents that additional quantities of flu shots are still available at the Cayman Islands Hospital, District Health Centres, Faith Hospital and Little Cayman clinic.

Director of Public Health Dr. Kiran Kumar said that so far this year there were 816 patients seeking medical care for flu like illnesses at government health facilities with the majority of these cases among children between the ages of 5 and 16 years. It is estimated that a similar number might have sought care from private physicians.

Dr. Kumar noted that the period between December and March is usually the peak of the flu season when typically the highest number of flu cases are reported.

The Medical Officer of Health, while encouraging individuals to get their flu shots, also notes that preventing the spread of the flu is very important and can be done by taking simple actions that include:

- Avoid close contact with people who are sick.
- Cover your mouth and nose when you are coughing or sneezing.
- If you do not have a tissue, cough or sneeze into your upper arm, not your hands.
- Wash your hands frequently with soap and water for at least 20 seconds. If soap and water are not available, use an alcohol-based hand sanitizer.
- Avoid touching your eyes, nose or mouth.
- Rest, drink plenty of liquids, and avoid alcohol and tobacco.

For flu shots members of the public can visit any of the District Health Centres, the Cayman Islands Hospital to receive vaccine at the following times:

- The General Practice Clinic at the Cayman Islands Hospital, Faith Hospital in Cayman Brac and all District Health Centres, from 2:00 p.m. to 4 p.m. Monday through Friday.
- Little Cayman Clinic. Residents of Little Cayman should contact the clinic to make arrangements.

Dr. Kumar advises that there will not be any cost, at this time, to anyone for the flu shots. Children age 7 years and

under will need two doses and children over 7 years need one dose.

To facilitate the flu shots for school children a special clinic is held between 3:00 p.m. and 5:00 p.m. Monday to Friday until March 23, 2007 in the Public Health Department (Women's Health Clinic Building), in addition to the other clinics.

The vaccine produces an immune protection between 1-2 weeks after vaccination, therefore if the child has been exposed to the virus during this period, the vaccine will not be effective and the child may still become ill with the flu.

It is to be noted that the flu shots taken at this time will not protect in the next season.

Dr. Kumar warns that some people may experience side effects of the vaccine. The most common reactions to the flu vaccine are soreness and redness at the site of the injection, fever, fatigue, painful joints and headache. Panadol or similar medications will relieve the symptoms. Before being vaccinated, it is recommended that persons become familiar with information about the vaccine.

Things to keep in mind for school-age children

- Do NOT give aspirin to a child or teenager who has the flu.
- Most antihistamines cause sleepiness. If a child still has a stuffy nose when she returns to school, parents may want to ask their child's doctor to prescribe a non-sedating antihistamine.
- Encourage children to cover coughs and sneezes, wash hands frequently, and keep hands away from eyes, nose and mouth.
- A sick child is advised to stay at home during the first days of illness when symptoms are most severe and the infection is most contagious. Children can return to school when symptoms are improving and no fever has been detected for 24 hours.

Things for schools to keep in mind

- Any employee, student, teacher, or staff suspected of having the flu should not attend school.
- Wash hands several times a day using soap and warm water for 15-20 seconds. Dry hands with paper towels or automatic hand dryers if possible. In school, allow regular breaks for the students and teachers to wash hands. Young children should be instructed and assisted to ensure proper hand washing. Restrooms should be checked regularly to ensure that soap and paper towels are always available.
- The flu can be spread from coughs or sneezes. Make sure tissues are available in all classrooms. Students and staff should cover their mouths when coughing and use a tissue when sneezing or blowing their noses.

# Walking your way to better health Royce Ebanks' inspiring journey

There is always a quest within us for better healthy and a better quality of life but not many of us are willing to take the challenge and step forward to radically alter our lifestyle and improve our health.

For Maintenance Foreman Royce Ebanks, the results of a medical exam which showed him as highly obese at 310 pounds and the likelihood of developing diabetes was all it took to initiate a radical change and a journey which serves as an inspiration to all of us.

During his annual physical last August, although looking healthy and towering as a giant with at 6' 2" and 300 lbs. Royce got staggering indicators which warranted that he alter his lifestyle to improve his health.

"It's easy, it's cheap, it's gentle on the body, and it's good for people of all ages and almost any fitness level" says Royce as he hopes to inspire a movement towards better health through the simple steps of walking.

The way to good health only takes simple, small steps he says and a willingness to keep on the journey and there is none better than walking. "Walking lifts your spirits, clears your mind, and improves your health. It also strengthens your bones and muscles, lowers your risk for some diseases, improves sleep, and helps you maintain or lose weight - all without fancy equipment, scheduled classes, or a high price tag" he continues.

## Getting Motivated

In this high-tech, fast pace age, that's more challenging than ever to stay active in, we often need motivation to get moving. However, it all begins with a simple step as Royce encourages us.

BLOOD WORKS	AUGUST. 21. 2006	NOVEMBER .20.2006	FEBRUARY 24.2007	DOWN
CHOLESTEROL	179	167	139	40 PTS
TRIGLYCERIDE	300	179	65	235 PTS
GLUCOSE	141	111	94	47 PTS

"For me it was a choice whether to continue doing what I was doing or taking the step to improve my health and being around for a long time" said Royce of his personal journey which began one step at a time.

"I opted for a combination of exercise and eating right and in less than one year the results are amazing" he proclaimed ecstatically having lost 63 lbs since he began his personal journey and chronicling every detail along the way.

For Royce his days begin at 3:00 a.m. walking up to fours and more than fourteen miles. For breakfast he carefully selects every item always paying careful attention to the calorie counts indicated on every package, a similar task he undertakes for every meal.

While "eating right" as Royce puts it, and not dieting has played a significant part in his improved health status, Royce credits walking as a bigger factor and one which has helped to motivate and inspire others.

## Walk Your Way to Better Health

On April 25, 2007 millions of people across the globe, like Royce, are joining in a campaign to promote walking and its benefits to health. Let's follow the lead of Royce and step the first step towards better health. It pays. Taking just 10 minutes three times a day to walk will help you live longer. In fact, studies show that just one hour of vigorous exercise will increase your life expectancy by two hours. It makes sense to Walk More and Eat Well to Live Longer.

## Why Should I Participate?

These days adults are spending more time at work than ever before, with little time spent being active. Start! Walking At Work day was created to remind you to take a time-out from your daily schedule and find just a little time for your heart. Why walking? Because we know that walking is the easiest, most convenient form of activity — and it's free. You don't need special skills, the training of a marathon runner, or a membership at an expensive gym to benefit from walking.

It's never too late to Start! Even if you don't begin walking until middle age, you'll increase your life expectancy. The benefit is hard to measure accurately, but a Harvard Alumni Study conducted by Dr. Ralph Paffenbarger and his colleagues and published in the New England Journal of Medicine in 1986 found that individuals lived two hours longer for every hour of regular exercise they did.

# CRUISE TO ALASKA

August 8-15, 2007

*Experience beauty and wonders of Alaska*



HSA Staff Relations invites you to experience the wonders of the last frontier – ALASKA on a 7-day cruise. The package includes 8 meals a day, award winning stage shows, 24 hour room service and constant pampering!

## \*Category 4A Riviera Interior Cabins

US \$1019.00 per person for the first and second guest in each cabin  
 US\$749.00 per person for the third and fourth guest in each cabin

## \*Category 6A Riviera Ocean View Cabins

US\$1319.00 per person for the first and second guest in each cabin  
 US\$829.00 per person for the third and fourth guest in each cabin

## \*Category 11 Junior Suite with Private Balcony

US\$1559.00 per person for the first and second guest in each cabin  
 US\$809.00 per person for the third guest in each cabin

Above rates are also inclusive of processing charges. All guests will pay an additional charge of US\$117.87 per person for government taxes.

Please note: the above rates does not include airfare to the cruise port of departure.

## Payment Information:

Deposit of US\$500 per person due April 27th  
 Final Payment due no later than May 31.



**For Further information please contact Jackie Neil**  
**Email: Jackie.neil@hsa.ky Telephone: 244-2777**

Carnival Spirit 7 day Alaska Northbound Cruise from Vancouver, Canada. (August 08-15, 2007)

DAY	PORTS OF CALL	ARRIVAL TIME	DEPARTURE TIME
WEDNESDAY	VANCOUVER	5:30PM	NA
THURSDAY	SAIL INSIDE PASSAGE	NA	NA
FRIDAY	KETCHIKAN	6:30AM	5:00PM
SATURDAY	JUNEAU	9:00AM	11:00PM
SUNDAY	SKAGWAY	7:00AM	5:00PM
SUNDAY	CRUISE LYNN CANAL	NA	NA
MONDAY	SITKA	6:30AM	5:00PM
TUESDAY	PRINCE WILLIAM SOUND	NA	NA
TUESDAY	VIEW COLLEGE FJORD	NA	NA
WEDNESDAY	WHITTIER, ALASKA	7:00AM	NA

# HEALTH SURVEY CHRONICLES 18 YEAR TREND IN WEIGHT AND BLOOD PRESSURE IN YOUNG CHILDREN OF THE CAYMAN ISLANDS

*Prepared by Dr. Laurence Vanhanswijck  
Research Coordinator, Health Services Authority*

Many adult diseases have their origin during childhood and excessive weight gain is found to be a precursor to a wide variety of physiological aberrations that ultimately predispose a child to adult morbidity and mortality. Blood pressure has similar predictive values, increases of only 1-2 mm Hg have been found to increase a child's risk of developing hypertension by 10% as an adult.

The literature clearly indicates a significant upward trend in ponderosity in children over the years. Concurrently an increase in blood pressure has also been identified, however, this has generally not been found to be directly related to weight. Weight in children is calculated using percentile scores, derived from a Body Mass Index equation, which hold into account their gender and age. Body Mass Index (BMI) is a measure of weight (kg) / height (m<sup>2</sup>). It is generally accepted in children aged 2-20 that the 85th percentile corresponds with the "overweight" criteria (BMI > 25) in adults as does the 95th percentile with the "obese" criteria in adults (BMI > 30).

These trends are being observed internationally. Not only are studies from the UK & America identifying prevalence of overweight and obesity in children, in Italy for instance a recent study indicated 40.6% overweight in children (average age 9.9 years) of which 19.5% were obese (Manzoli et al., 2005). This study expressed the urgent need for preventative measures. In Israeli children 95th percentile values had increased by 12.7% in boys and 11.8% in girls from 1990 to 2000 (Huerta, Gdalevich, Haviv, Bibi & Scharf, 2005). Similar trends are found in Wales, where a significant increase in overweight and obesity was found over the last 16 years in 5 year olds (Jones, James-Ellison, Young, Gravenor & Williams, 2005). In Japan obesity in children increased significantly between 1989 and 2002, a rising trend was also found for becoming obese before elementary school in both genders between these same years (Yoshinaga et al., 2004).

High blood pressure in childhood has serious consequences, as many as 40 percent of children with high blood pressure have enlarged hearts by the time they are diagnosed and 15 percent have protein in their urine, which indicates that they may have kidney damage. In 10 to 15 percent, changes in the retina can be detected (Croix, Feig, 2006). Having high blood pressure puts a child at a higher risk for stroke, heart attack, kidney failure, loss of vision, and atherosclerosis in later life (Antoniewicz et al., 2006). Blood pressure has been found to vary over gender at childhood and that difference to carry through to adulthood. Males tend to have higher blood pressure, specifically systolic and also show a greater increase with age than females (Wang et al., 2006).

Overweight and obesity in childhood are highly associated with elevated blood pressure as well as multiple comorbidities such

as dyslipidaemia, reduced insulin sensitivity and alterations of large and minor vessels. Overweight and obesity in children and adolescents should be regarded as diseases with an extremely high risk for the development of atherosclerosis and cardiovascular complications in adulthood. A seven year follow-up study of individuals aged 7-69 years of age assessing adiposity indicated significant stability over time of indicators of adipose tissue (Dasgupta, O'Loughlin, Chen, Karp, Paradis & Tremblay, 2006). This study concludes that if someone is obese one can be confident that that individual will remain at elevated risk for cardiovascular disease or diabetes through his or her life.

The urgency of preventative measures in childhood seems to be the norm in recent findings. Although these trends have been observed globally studies have highlighted a different contribution to overweight and obesity in diverse national and racial/ethnic groups. In most studies Caucasians tend to have the lowest risk. Mexican-American children have been found to have the highest overweight rate, intermediate in non-Hispanic Black children and lowest in non-Hispanic White children (Deckelbaum & Williams, 2001). In the UK significant ethnic differences are found between British-Afro-Caribbean children and the general population, the latter being at increased risk of obesity, independent of socio-economic-status (Saxena, Ambler, Cole & Majeed, 2004).

Ethnic variations are also found for blood pressure measures. Munter et al. (2004) described, after adjustment for age, mean systolic blood pressure to be significantly higher by 1.6mm Hg among non-Hispanic Black girls and 2.9mm Hg among non-Hispanic Black boys compared with non-Hispanic Whites. Among Mexican-Americans, girls' systolic blood pressure was significantly higher by 1.0mm Hg and boys' by 2.7mm Hg compared with non-Hispanic White girls and boys. After adjusting for socio-economic-status, gender and adiposity Black children were found to have higher systolic blood pressure increases over time than White children and these tended to increase over time. Diastolic blood pressure differences between these groups are manifest in childhood, however, remain stable over time.<sup>2</sup>

Trends in weight status in children have mainly focused on African-American, White, Black, Hispanic, Mexican or British-Caribbean ethnical groups. The literature to date, to our knowledge, do not report weight or blood pressure trends in children living in Caribbean countries directly. Trends reporting Caribbean children have been mostly those outside their country of origin. Being able to study the trends in children within the Caribbean removes possible confounding variables such as acculturation which can be attributable to some of the discrepancies found. The literature reveals obesity and hypertension to be a significant problem in the Caribbean as found in St. Lucia, Jamaica and Barbados (Forrester et al., 1996), However, these figures are representative for an adult population and do not indicate developing trends over time.

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# Health Survey Findings Released

*continued from page 10*

As it is the significant increase in weight status and blood pressure in young children globally which is causing grave concern for later health outcomes, it is this area that needs to be addressed and investigated. Although recommendations in the USA suggest screening of blood pressure as early as 3 years of age, many of the studies to date have usually evaluated trends over time in slightly older children.

In an era which is observing epidemics of obesity, increases in hypertension and related diseases, specifically with the rise of prevalence in young children it seems pertinent that trends be described within different populations and regions. Specifically with relation to ethnical variation in childhood weight and blood pressure it would be prudent to study these groups within their own countries. If these trends are marked this will lead to hefty burdens on society and economy in the future as their children progress into adulthood carrying with them risk factors for a variety of potentially life threatening diseases. These burdens will be particularly heavy within smaller populations and communities within the Caribbean.

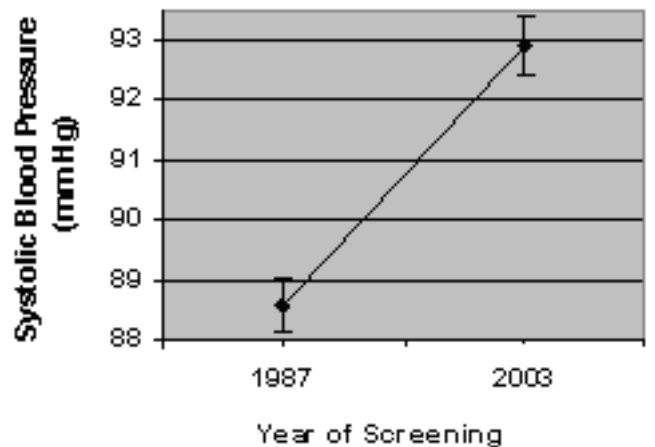
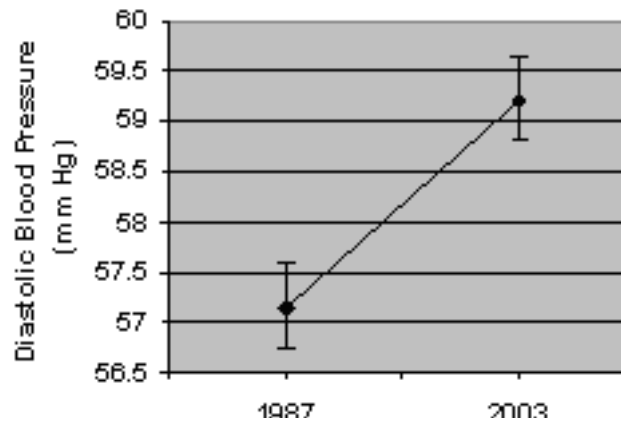
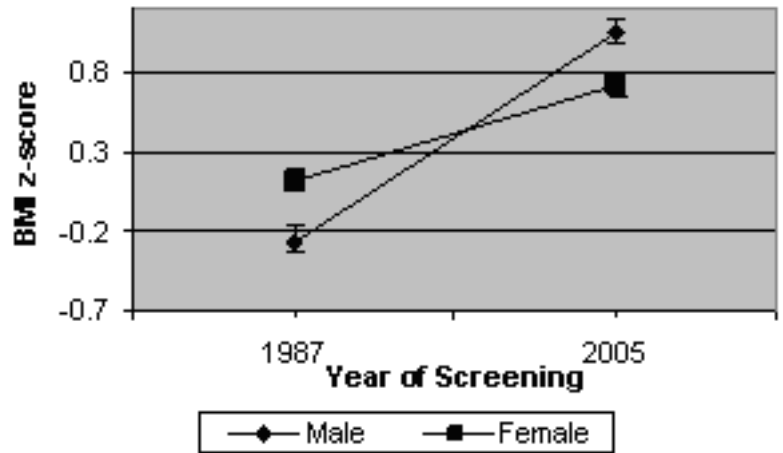
Since 1987 it has been mandatory for every child entering the school system (mean 4.6 years of age) in the Cayman Islands to have a health screen. This is run in June every year and consists of general measurements and immunization records including Blood Pressure, Weight, Height measurements. These data were entered into a database from manual logs and analyzed. From this Body Mass Index was calculated (BMI: weight (kg) / height (m<sup>2</sup>)) which allowed for analysis of the corresponding childhood percentile cut-off scores, 85th percentile corresponds with the “overweight” in adults and the 95th percentile with “obesity” in adults. Ages were limited between 36 and 84mths of age rendering an average age of 4.6 years of age.

In 2005 45.2% of children entering the school system were overweight (20.2%) or obese (25.1%), this has significantly increased more than doubling from 18.8% in 1987. Young boys have shifted from being less heavy than females in 1987 to being significantly heavier than females in 2005.

Figure 2 – Average and SE BMI Z-Score measures per year of screening for males and females.

Systolic and diastolic blood pressure have significantly increased by 4.9mm Hg and 2.58mm Hg over the last 18 years, these results were attenuated when adjusted for age and BMI z-score. Additionally boys were found to have higher diastolic blood pressure, rather than systolic as outlined in the literature, than girls.

Figure 1 – Average systolic and diastolic blood pressure between 1987 and 2003 after adjustment for gender and height z-score



The data in this study reveal that the Caribbean has not been spared the dramatic global rise in childhood weight status and in blood pressure. In the Cayman Islands a whopping 45.2% of children aged 3 to 7 years of age are at risk of overweight or obesity, this is more than double from 18 years ago (18.8%). Over the last 18 years males have changed from having a lower weight status than females to being significantly of higher weight. Data reveal that not only has weight status increased but according to the most recent available data in the Cayman Islands average systolic blood pressure, adjusted for weight and age, has significantly increased since 1987 by 4.34mm Hg and diastolic blood pressure by 2.05 mm Hg. Without adjustment these differences are 4.9mm Hg and 2.58mm Hg respectively.

These findings are alarming. Data from the United States indicate 25% of their children to be overweight and 11% obese, the rate of childhood obesity in the Cayman Islands is about double that of the USA. These data add to the growing literature highlighting global epidemics of obesity. A child with a BMI at or above the 85th percentile are more likely than a child whose BMI is in the reference range to gain weight and reach obese status in adolescence. This in turn sets them up for adult obesity; it has been concluded in studies<sup>23</sup> that the persistence of pediatric obesity into adulthood increases according to the age at which obesity is initially present. These high incidence rates bear with them the increased likelihood of co-morbid disease in later life.

Not only is weight a growing concern but so is the unprecedented rise in childhood blood pressure. The current data outline the increase in both systolic and diastolic blood pressure within the children of the Cayman Islands. These mirror global rises in blood pressure in children internationally. The current data attenuated significant increases in blood pressure after adjusting for weight suggesting that lifestyle factors other than these are involved in the observed increases in blood pressure. In general the data supported males to have higher blood pressure than females, however, the discrepancy was found on diastolic blood pressure, and not systolic blood pressure as mainly outlined in the literature. Children are not immune to the effects of increased blood pressure levels, a large portion of children will maintain these levels leading to enlarged hearts, protein in their urine, retina anomalies, stroke, heart attack, kidney failure, loss of vision and atherosclerosis in later adulthood. The USA Center for Disease Control highlights systolic and diastolic blood pressure increases of 1 and 2.9mm Hg in children between 1988-1994 and 1999-2000, again the increases in blood pressure in the Cayman Islands doubles this amount, after adjustment.

Globally childhood weight status and blood pressure has been on the rise, many studies have concentrated on western civilization and the westernized life style, highlighting

this as a major influence on these increasing numbers. The current data outlines the importance of monitoring trends within all cultures and ethnic disparities. The Caribbean culture has been outlined in empirical research into childhood weight trends; however, it has been embedded within other cultures, making it hard to draw out the true nature of the findings. Studies have observed different levels of weight status for Caribbean nationalities, however, they have mainly been mixed nationalities and not been in their native environment leading to the influence of acculturation.

This data marks the importance of health measures in very young children. It highlights that the Caribbean is part of the global obesity and hypertension trend; in fact, it surpasses that of many countries, urging preventative care measures to be put in place. Although this study clearly marks the net level of weight status and blood pressure in the Cayman Islands in young children it has not extrapolated ethnic background. As the literature has outlined a significant higher prevalence of both weight status and blood pressure in diverse ethnic groups it would be prudent to record ethnicity. It can not be assumed that all children are naturally of Caymanian background. If all children were of Caymanian background a more in-depth stratification would need to be applied to capture all the distinct hereditary ethnic fusions which are native to the people of Cayman. Being an Island which relies on expatriate labor and whose citizens spend time abroad (e.g. studying, working etc) other factors would need to be considered in future research such as the length of stay on the Island, socio-economic-status, parental nationality and education etc. Future studies would also benefit from including waist-to-hip ratio as the literature supports the finding that abdominal obesity is a stronger risk factor for cardiovascular disease and type 2 diabetes than overall obesity. As the current study indicates other lifestyle factors to influence weight and blood pressure, it would be important to monitor such factors as physical activity, dietary pattern, calorie, fat and sodium intake. These factors would be extremely important to be explored in a culture which is quite new to "western" influences, as these effects could potentially contribute to the rise in weight and blood pressure within the Cayman Islands.

We would like to acknowledge Dr. Tadros for opening up the possibility for research at the HSA. We would also like to acknowledge Nurse Hazel Brown; Chief Nursing Officer of the HSA, this study was made possible due to the foresight and initiation of this type of data collection as far back as 1987. We also thank Public Health Nurse Teldra Lewis for the collection of the most recent data used within this particular study as well as other nurses involved during these time periods. Without their rigorous health screenings this type of study would not have been possible. Finally our thanks to all those who have participated in the data entry and Mrs. Helen Salisbury for her continued diligence and enthusiasm entering the intricate data.