

# The Healthcare and Economics of **Cardio Metabolic Syndrome**

May 2012



## **BUILDING A HEALTHY GLOBE**

- Economic Impact of Cardio-Metabolic Syndrome in Georgia
- Business perspectives: Building a Healthy Company
- American College of Cardiology Scientific Sessions 2012
- World Congress of Cardiology Scientific Sessions 2012

# Welcome

## Strategic Meeting

Dr Michael Johns, Chancellor of Emory University and Omar Lattouf MD meet with Dr John Seffrin, CEO of the American Cancer Society on May 24 2012 as they sought his opinion and advice on strategic steps to be considered in the further developmental plans to be taken in the promotion of global initiative to combat Cardio Metabolic Syndrome and the launching of the CEO Roundtable on CMS.

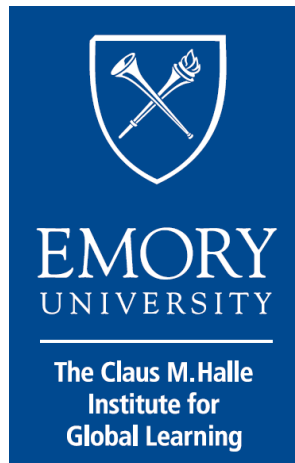


### Editorial Board

Omar M Lattouf MD PHD FACC FACS

Heval M Kelli BS, MD (May 2012)

[www.cmsnews.org](http://www.cmsnews.org)



# The Healthcare and Economics of Cardio Metabolic Syndrome

## What is CMS?

Cardio metabolic syndrome also known as insulin resistance syndrome or metabolic syndrome X is a combination of risk factors of metabolic origin directly correlate with the development of atherosclerotic cardiovascular disease (ASCVD) and many chronic diseases including type 2 Diabetes. It consist of obesity, dyslipidemia (elevated triglycerides and low high-density lipoproteins), high blood pressure and glucose. Obesity and sedentary lifestyle are the major driving forces behind the syndrome. Studies have shown a strong link between CMS and increased prevalence of MI and stroke. It was reported that CMS closely doubled the relative risk for CVD events. There is the need for global awareness about CMS and its impact of health and economy. The collaboration of various members of the society including health, academic, social and business sectors is crucial to combat this rising health and economic burden.



## Georgia ranks second nationally with one in every five children being obese



Brenda Fitzgerald, M.D.  
Commissioner of the Georgia Department  
of Public Health

### Economic Impact of Cardio-Metabolic Syndrome in Georgia

The increase and prevalence of cardio-metabolic syndrome (CMS) nationally is staggering. In the State of Georgia this prevalence has reached crisis proportions. As this epidemic increases, so will the economic impact that this cluster of diseases and risk factors has on the state, as well as nationally.

The number of CMS-related hospital discharges has doubled from 410,674 in 1999 to

829,509 in 2010. Figure one shows the steady increase of CMS-related hospital discharges in Georgia.

Charges associated with CMS-related hospital discharges have also dramatically increased

ous spiral of health issues is to prevent them from initially occurring. The Georgia Department of Public Health (DPH) is very involved with preventing the onset of CMS with our

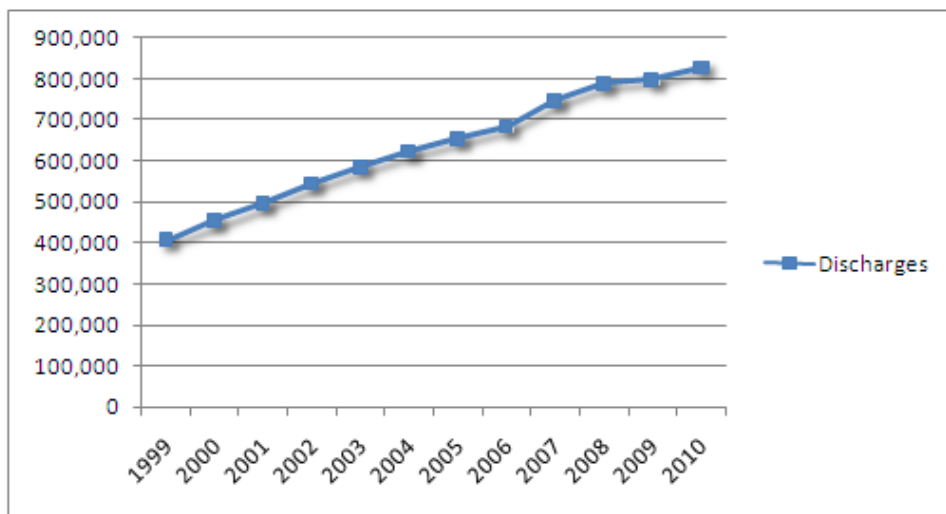


Figure 1: Number of cardio-metabolic syndrome-related hospital discharges in Georgia. Prepared by Georgia DPH, OHIP.

from \$5 billion in 1999 to \$25 billion in 2010. Figure two shows the charges related to hospital discharges related to CMS.

Once considered a problem only in high income countries, CMS's underlying causes, including obesity and diabetes, are now dramatically on the rise in low- and middle-income countries, particularly in urban settings. The key to ameliorating this treacher-

childhood obesity initiative. Our goal is to completely avoid the condition at all.

In the State of Georgia the childhood obesity epidemic has reached crisis proportions. Six of the 10 states with the highest rates of childhood obesity are in the Southeastern United States; Georgia ranks second nationally with one in every five children being obese.

# The Healthcare and Economics of Cardio Metabolic Syndrome

obese. In Georgia, 36 percent of all adults are at an unhealthy weight and another 29 percent are obese. That represents two-thirds of Georgians.

The best predictor of obesity in adulthood is obesity in childhood. Let us consider the approximately 235,000 children in Georgia ages 10 to 17 years in 2009. By 2019, these children will be adults between the ages of 20 and 27 years. Unless there is a significant change, these children will become obese adults resulting in a workforce in Georgia with increased rates of the other risk factors and diseases that comprise CMS — chronic hypertension, diabetes and heart disease — leading to increased health care costs and higher health insurance premiums, making Georgia less attractive to businesses, halting economic development and increasing poverty statewide. Georgia is not alone here. This is a bleak view of our potential future, but it is not inconceivable.

Our challenge is to change the behavior of not only the overweight and obese, but to change the behavior of all of Georgia's 10 million people so we stay healthy. In 2008, the Georgia Legislature enacted the Student Health and Physical Education Act (SHAPE). This legislation requires that all students enrolled in physical education classes participate in a fitness assessment, the results of which are sent to parents. DPH and the Georgia Department of Education, along with several community-based partners, will ensure implementation during the 2011/2012 school year. Resulting data, when paired with other sources of data such as hospital discharge data, school test scores, birth outcomes and community characteristics, will provide our state leaders with unprecedented information to ensure that the most effective interventions and policy changes are proposed and implemented in Georgia.

Obesity is no longer just a public health concern; it is a problem that may challenge the future health, safety and economic wellbeing of our nation. It is a problem that we can no longer compartmentalize as the responsibility

of one segment of government or of the medical community. All sectors of government, the business community, and leaders from all backgrounds will be needed to solve one of the most critical and important chal-

**Charges associated with CMS-related hospital discharges have increased from \$5 billion in 1999 to \$25 billion in 2010.**

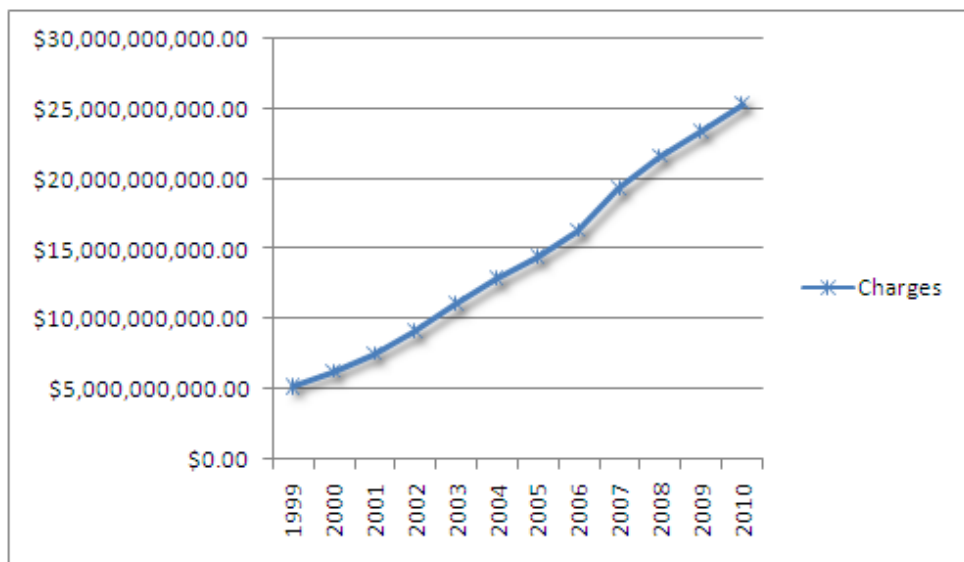


Figure two: Charges for cardio-metabolic syndrome-related hospital discharges in Georgia. Prepared by Georgia DPH, OHIP.

lenges that we now face as a state, as a nation and as a world.

The Department of Public Health is but one piece of this puzzle. To combat this increasing health problem, public health officials and members of the medical community from around the world formed the Global

Coalition to Combat Cardio Metabolic Syndrome. It will take a synergistic effect to truly combat this devastating epidemic that affects more than 300 million people worldwide.

The Global Coalition brings together academics, scientists, researchers, government, institutions and pharma to have national and international impact in addressing this worldwide epidemic. We have the opportunity to make a significant impact here in the state of Georgia by creating solutions that can impact the world.

**BUILDING A HEALTHY GEORGIA**



# Perspectives



**WORKsiteRx**<sup>™</sup>

WORKsiteRx is a health management company that has served mid-size and large employers by bringing onsite clinic and comprehensive care management services to the workplace. Our experience shows that up to 80% of health care costs for these employers is caused by only 20% of the employees due to health risks related to lifestyle and chronic illness. Whether related to lifestyle or chronic illness, these conditions are directly related to CMS, which has caused employers to embrace the message, "Control CMS and you control a company's health care costs".

Now more than ever, companies are faced with the choice of providing effective means of identifying those individuals at risk for CMS and providing the methods to reduce those risks or bear the unbridled cost proven to be directly related to this condition. Some mid-size and large corporations have elevated this approach as a serious business strategy consistent with their overall strategy for growth and development. As US-based companies seek to return to productivity levels associated with the pre-2008 business environment, other corporations should follow their example.

William "Bill" Bennett CFP, CFCI  
Founder & Sr. Principal  
WORKsiteRx  
[www.worksiterx.com](http://www.worksiterx.com)

## Prevention Exercise Diet

### BUILDING A HEALTHY COMPANY



# Progress

World Congress of Cardiology Scientific Sessions 2012  
Workshop and Roundtable Discussions on Cardio Metabolic Syndrome  
April 18, 2012 1 pm - 3 pm



The Halle Institute for Global Learning at Emory University  
The American College of Cardiology  
The Gulf Heart Association  
The Emirates Cardiac Society  
The Saudi Heart Association  
The American University of Beirut  
University of Jordan

## The World Congress of Cardiology, The Gulf Pilot Project and plans for the Coalition to Combat Cardio Metabolic Syndrome.

On April 18 and 19 2012 the US based Cardio Metabolic Research Team composed of Drs. Omar Lattouf, Arshed Quyyumi, Khusrow Niazi, Feras Bader and Heval Kelli travelled to Dubai and participated in the meetings of the greatly attended World Congress of Cardiology.

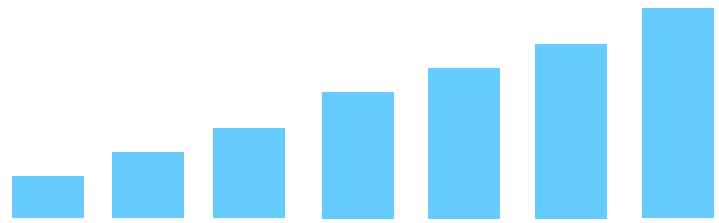
In special sessions, meetings with Metabolic Syndrome research leaders took place to explore the feasibility of launching a Gulf Cardio Metabolic Education and Prevention Pilot Project that would be modeled after the Cardio metabolic Risk Reeducation in Southeast Asia - NIH funded trial headed by Professor Venkat Narayan of Emory University (<http://www.coecarrs.org/coe/jsp/piCorner.jsp>).



A series of discussions took place between the above team members and ACC President Dr. William Zoghbi, ACC President-elect Dr. John Hall, ACC Past President and founder of the Middle Research Study Group Dr. Douglas Peter Zipes, ACC senior staff Mr. Basel Alloush. Further meetings were conducted with regional colleagues from the Gulf and surrounding countries Dr. Wael Almahmeed, of the United Arab Emirates, Dr. Jassim Al Suwaidi of Qatar, Drs. Hani Najm, Khalid Alhabib and Zohair Alhalees of the Kingdom of Saudi Arabia, Dr. Samir Alam of the American University of Beirut School of Medicine, and Dr. Nada Yasein of the University of Jordan Faculty of Medicine. Further discussions took place with industry partners that have interest in promoting cardio metabolic health and supporting research in this important area.



# Progress



World Congress of Cardiology Scientific Sessions 2012  
 Workshop and Roundtable Discussions on Cardio Metabolic Syndrome  
 April 18, 2012 1 pm - 3 pm



The Halle Institute for Global Learning at Emory University  
 The American College of Cardiology  
 The Gulf Heart Association  
 The Emirates Cardiac Society  
 The Saudi Heart Association

Furthermore, ongoing discussions with European partners are taking place to expand the up-and-coming coalition to combat cardio metabolic syndrome by hosting a meeting in Europe in summer 2012 for European partners with interest in this major health epidemic.

As we proceed to build our initiative to create a global coalition to combat cardio metabolic syndrome, we are confronted with certain important realities that will require further work before we could realize a workable solution to materialize benefits that will reach patients and citizens.



Below are initial limitations that will need to be further worked out

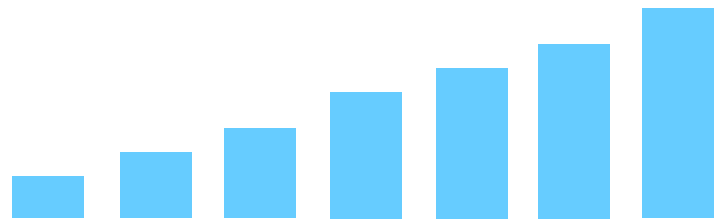
1. Currently no funding is yet available for the planned Gulf Pilot Project. This will need to be addressed.
2. Interest from Gulf parties is indeed strong but we still need executable agreements and road maps.
3. There is strong interest from funding agencies and corporation, but much work is still needed to get actual funding to support the launching of this important project.

### Moving forward:

To address the above issues, the first key step is underway. Drs. Narayan, Quyyumi, Ali and Lattouf in partnership with the American College of Cardiology, have initiated the design and documentation of the research project that is modeled after the CARRS Project of South East Asia and the Bio-Banking Project of Emory University and partner institutions



# Progress



American College of Cardiology 2012

Session on Cardio Metabolic Syndrome-An Epidemic that Ignores Borders, Time Zones, and Religion

March 23 2012



## CardioSourceNews SUNDAY



61<sup>st</sup> Annual Scientific Session & Expo

ACC-12 with TCT  
Innovation in Intervention

61ST ANNUAL SCIENTIFIC SESSION · CHICAGO · MARCH 24 - 27 2012

ACC MENA session 2012 was the place to be in Chicago.

With representatives from nearly every country in the ME present, and with the ACC leadership at hand discussions were rich on the epidemiology of CMS and how to combat this ever rising epidemic.

Call to arm was made to initiate a multinational trial to find best ways to control this disease. Next stop will be at the WCC were a task force will meet to review plans for pilot project trial.

Excerpt from ACC newsletter Cardio Source News:

"The talks were followed by the introduction of the first-ever ACC Cardiovascular Conference on the Middle East Research Project. The project, which focuses on cardiometabolic syndrome, was born out of the ACC Middle East Steering Committee. Chaired by Omar Lattouf, MD, the project will involve all of the countries in the Middle East as well as centers in the U.S."



Panelists from the Middle East, North Africa and the U.S. discuss issues relevant to their regions during Friday's International Cardiovascular Conference: Focus on the Middle East.





# Future

2nd CEO Roundtable on Cardio-Metabolic Syndrome  
Halle Research Program/Rollins School of Public Health Emory University  
To Be Announced



## CEO ROUNDTABLE ON CARDIO METABOLIC SYNDROME

Leading medical experts and executives of several major corporations will gather at Rollins School of Public Health to discuss the rising incidences and prevalence of Cardio Metabolic Syndrome and its impact on the health and economic well-being of citizens, corporations, and society at large.

### **Mission of the CEO Roundtable on Cardio Metabolic Syndrome:**

It is the mission of the CEO Roundtable on Cardio Metabolic Syndrome to support the efforts of scientists, researchers, health care providers, pharmaceutical and biotechnology companies, private and public organizations to create a broad based, global initiative to limit and reverse the rise of Cardio Metabolic Syndrome and its downstream diseases

### **Vision of the CEO Roundtable on Cardio Metabolic Syndrome:**

It is the vision of the CEO Roundtable that through the collective efforts, mankind will be able to address the ever rising epidemic of Cardio Metabolic Syndrome and create effective preventive and therapeutic measures to reduce its ever rising health and economic impacts on humanity.



### **Global Grand Rounds**

#### **A Series of Monthly Grand Rounds in Cardio Vascular Care**

Key Opinion Leaders in Cardiology and Cardiovascular Surgery from the United States and from the Middle East and North Africa will coordinate a series of lectures and grand rounds that would rotate between the various capitals in the region in collaboration with premiere US institutions coordinated by the Halle Institute for Global Learning of Emory University.

Lectures will be broadcasted live via the internet to participating sites in various countries. Lectures would be media and image rich to showcase "how I do it" type of presentation or "show and tell".

For each lecture presented live there will be two presenters: a MENA based speaker and an Atlanta based facilitator / discussant, or vice versa. The facilitator introduces the lecturer and participates in stimulating the discussion with the audience and provides key-point stress as needed.

A schedule of lectures in advance of starting the lecture series will be established; i.e. one lecture per month in the first year.

The schedule and titles of the lectures along with the biographies of each lecturer and discussant will be circulated to the audience and advertised in the appropriate venues well in advance of each lecture.



# JOIN OUR MISSION

[www.cmsnews.org](http://www.cmsnews.org)



Born in Georgia- USA

Global Coalition to Combat Cardio Metabolic Syndrome



EMORY  
UNIVERSITY

The Claus M. Halle  
Institute for  
Global Learning