

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

February 2012



- What is CMS?
- The Global Status of Cardio-Metabolic Diseases
- CEO Roundtable on Cardio-Metabolic Syndrome
- World Congress of Cardiology Scientific Sessions 2012

Welcome

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Welcome to the first edition of this newsletter on the Healthcare and Economics of Cardio-Metabolic Syndrome (CMS).

CMS, a cluster of diseases and risk factors—including high blood pressure, high blood sugar, unhealthy cholesterol levels and abdominal fat—that has reached epidemic proportion in Georgia, in the United States and across many, if not all countries around the world.

Let me share with you some sobering data from the State of Georgia, and I am sure data of other states and countries are likely to be similar, if not in cost, but likely in incidence and prevalence!

Risk Factor and Endpoints	GA Prevalence	US Prevalence	GA Cost in \$ Billions
Systemic Arterial Hypertension	Georgia 2007: 30.4%	U.S. 2007: 27.8%	
Diabetes Mellitus	Georgia 2007: 10.1%	U.S. 2007: 8.0%	5.1
Obesity	Georgia 2007: 28.7%	U.S. 2007: 26.3%	2.4
Hyper Cholesterolemia	Georgia 2007: 37.4%	U.S. 2007: 37.6%	
Stroke	Georgia 2007: 3.3%	U.S. 2007: 2.6%	1.7
Renal Failure	GA 2005 139 per 100,000		1.0
Myocardial Infarctions	Georgia 2007: 4.3%	U.S. 2007: 4.2%	2.7
Cardio Vascular Disease	Georgia 2007: 4.1%	U.S. 2007: 4.1%	11.2
No Leisure Time Physical Activity	Georgia 2007: 24.7%	U.S. 2007: 23.0%	0.6

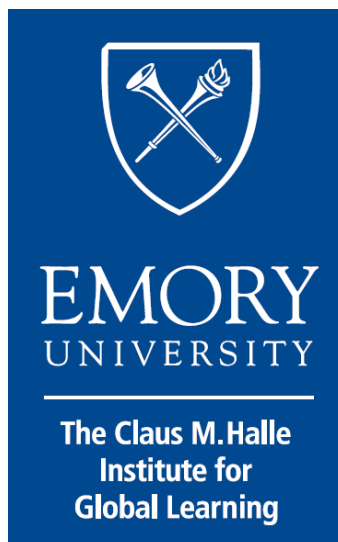
Sources: Georgia Dept of Human Resources and Ga Dept of Community Health



These findings led to the submission of a proposal to the American College of Cardiology (ACC) to launch a global initiative to combat Cardio Metabolic and to hold a series of workshops, mini-summits and roundtable discussions. And the journey has just begun.

Editorial Board

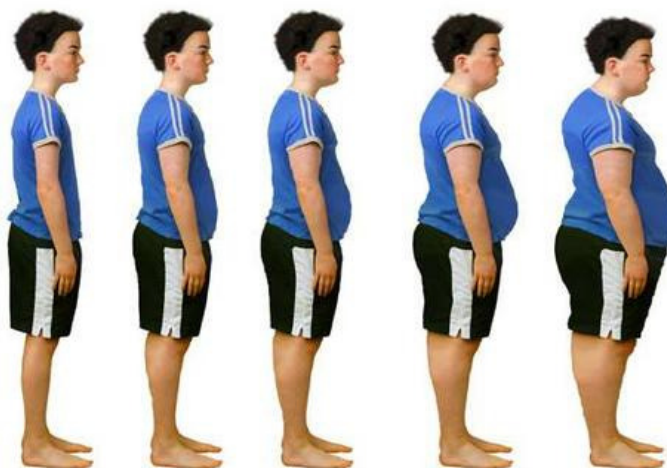
Omar M Lattouf MD PHD FACC FACS
Heval M Kelli BS, MD (May 2012)



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.



Six out of the top 10 risk factors for death are cardio-metabolic, such as obesity and smoking



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even in most economically stressed regions such as rural Bangladesh. In low, middle, and high-income countries, six out of the top 10 risk factors for death are cardio-metabolic, such as obesity and smoking. According to reports presented at the World Economic Forum, chronic disease is more than likely to impact global economic development, indicating the need to focus on chronic diseases and their control in order to maintain the process of positive globalization and advancement.

The diabetes pandemic is just beginning to unravel itself, and while BP and cholesterol levels are rising, so is obesity. All previous projections for diabetes are proving to be underestimates. Recent International Diabetic Federation (IDF) data showed that currently, 366 million people have diabetes

worldwide, with 4.6 million diabetes-related deaths annually, a number that had been projected to be reached in the year 2030! Current diabetes-related expenditure worldwide is \$465 billion (\$113 billion in the United States). It is astonishing that one in five healthcare dollars spent is spent on diabetes. The prevalence and incidence of diabetes has been increasing in the United States in parallel with obesity. Studies have shown that the incidence and prevalence of overweight and obesity are on the rise.

Diabetes is on the rise in urban areas around the world. In urban India, the prevalence of diabetes increased 72.3 percent over a 14-year period. It is projected that number of people with diabetes in MENA will be up by 94 percent in the next 20 years. Chronic diseases are linked to poverty, with people likely to be pushed into poverty once chronic diseases are diagnosed.

Grand challenges for chronic disease are to raise public awareness, enhance economic policies, modify risk factors, engage business communities, and reorient health system from acute curative model to preventive system. It has been proven that the incidence of diabetes can be halved with lifestyle interventions. The challenge, however, is how to implement and sustain such lifestyle interventions

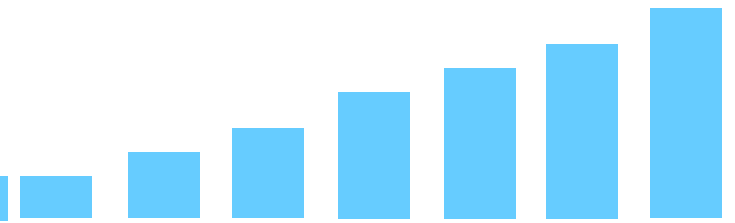
The Global Status of Cardio-Metabolic Diseases:

Have They Reached the Level of a Worldwide Epidemic?

On Sept. 18-19, the United Nations held a summit on non communicable diseases (NCD) with delegates from 200 countries present. It was noted that across the globe, people are living longer in both wealthy and developing countries. Deaths from NCD are exceeding those from infectious diseases



Progress



Complex Management of System Failure in the Cardiac Patient Workshop on cardio-metabolic syndrome June 23–25, 2011

In collaboration with the Halle Institute, the American College of Cardiology, the King Hussein Cancer Center, the Jordan Cardiac Society, and the Eastern Mediterranean Public Health Network, the International Academy of Medicine and participation by faculty from Emory University School of Medicine, Harvard School of Public Health, Georgia Health Sciences University, University of Utah, American University of Beirut, University of Jordan School of Medicine, Georgia Institute of Technology, Morehouse School of Medicine, St. Joseph's Translational Research Institute, Children's Healthcare of Atlanta and the Atlanta Veterans Affairs Medical Center medical experts from around the world gathered at Emory University on Oct. 13-14, 2011 and at the University of Jordan on June 25 2011 to discuss the prevention and treatment of the rising global epidemic of cardio-metabolic syndrome.



Cardio-Metabolic Syndrome: Prevention, Diagnosis, and Treatment Mini-Summit

October 13-14, 2011

Dr. Brenda Fitzgerald, Commissioner of the Georgia Department of Public Health, along with key opinion leaders and experts on diabetes, hypertension, obesity and dyslipidemia addressed a range of topics including insulin resistance, lessons learned from combating tobacco use, cardio-metabolic syndrome in children and the local and global economic impact of cardio-metabolic syndrome. Attendees also discussed opportunities for partnership among academia, industry and government and the initiation of a multinational clinical study to investigate the best methods of preventing and treating cardio-metabolic syndrome.

This discussion resulted in the launch of the Global Coalition to Combat Cardio-Metabolic Syndrome

CEO Roundtable on Cardio-Metabolic Syndrome Halle Research Program/Rollins School of Public Health Feb. 2, 2012

Leading medical experts and executives of several major corporations gathered 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.

Hosted by Emory University Chancellor Michael M.E. Johns, Vice Provost for International Affairs Holli Semetko, and Emory professor of surgery Omar Lattouf, participants reviewed and examined best methods of reducing such incidences by applying evidence-based medicine to improve prevention and treatment of this global epidemic. During an afternoon session moderated by Goizueta School of Business Professor Jeff Rosenzweig, Professor Jag Sheth, Dr Neal Gordon CEO of Intervent and Dr David Neff, US Director Medical Affairs, Atherosclerosis Group of Merck explored and presented innovative health management strategies of reward and recognition.



Future

American College of Cardiology 2012

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

March 23 2012

Co-Chairs: *Nanette Kass Wenger MD and Chaim Lotan MD*

Panelists: *Ziyad Ghazzal MD, Feridoun Noohi Bezanjani MD, Ashraf Reda MD and Paul D. Thompson MD*

Cardio Metabolic Syndrome in the Middle East-A Growing Import from the West- Incidence, Trends, and Regional Challenges

Jassim M. S. Al Suwaidi MD

The Crucial Role of Women in Addressing This Challenge

Azin Alizadehasl MD

Children Should be the Target to Reverse this Challenge

Robert Siegel MD

Panel Discussion – Cardio Metabolic Syndrome-An Epidemic that Ignores Borders, Time Zones, and Religion

Introduction of Collaborative Research Project and Middle East Million Hearts Campaign

Omar Mahmoud Lattouf MD

Introduction of Collaborative Research Project and Middle East Million Hearts Campaign

Jack Lewin MD

Comments and Wrap UP

Aaron D. Kugelmass MD, Mohamed Sobhy Aly MD, William A. Zoghbi MD and Hani Najm MD



61st Annual Scientific Session & Expo



March 24 – 27, 2012 • CHICAGO

Exhibits: March 24 – 26



Global Grand Rounds

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 advertized in the appropriate venues well in advance of each lecture.

Future

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



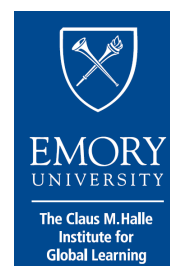
ORGANIZERS: THE HALLE INSITUTE FOR GLOBAL LEARNING AT EMORY UNIVERSITY AND The AMERICAN COLLEGE OF CARDIOLOGY, IN COLLABORATION WITH THE GULF HEART ASSOCIATION AND THE EMIRATES CARDIAC SOCIETY.

Location: DUBAI, UAE

Date and Time: Wednesday April 18-2012. 1:00 pm-3:00 pm

In this workshop and roundtable discussions, subject matter experts and key opinion leaders from the American College of Cardiology, Emirates Cardiac Society, Gulf Heart Association and Emory University School of Medicine along with distinguished regional and international participants will discuss the following topics.

- The Public Health Dimension of Cardio Metabolic Syndrome: The Feasibility of Organizing and Funding A Prospective Longitudinal Multi Institutional, Multi National Study on the Incidence, Prevalence, Prevention and Treatment.
- Healthcare Economics of Cardio Metabolic Syndrome.
- Cardio Metabolic Syndrome in Children: Genetics, Role of Intra Uterine Development, Neonatal and Childhood Indicators of Future manifestations.
- Cardio Metabolic Syndrome, Heart Failure and Atrial Fibrillation.
- The Physiologic Bases of Cardio Metabolic Syndrome; Lessons learned from Pre Clinical Trials.
- What are key steps and milestones toward a multi-national, multi-institutional prospective initiative to control CMS?



JOIN OUR MISSION

http://halleinstitute.emory.edu/combating_cms



Born in Georgia- USA

Global Coalition to Combat Cardio Metabolic Syndrome



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