



CVD Prevention global news update
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Message from Dr. Sania Nishtar Founder and President, Heartfile

Sunday, September 24, 2006 is World Heart Day. Heart disease and stroke are major causes of death globally. Maintaining a healthy lifestyle and controlling the major cardiovascular risk factors, such as an unhealthy diet, physical inactivity and tobacco use, can prevent heart attacks and stroke and help the heart to age more slowly. That's why this year's World Heart Day campaign asks: "How Young is Your Heart?"

Health care providers and the general public alike should take this opportunity to promote heart health—in their own lives and in their homes, schools, worksites, clinics, communities, and other settings. Here are the positive actions we can all take:

- **Eat well and wisely.** A calorie restricted, nutritionally balanced diet helps slow the ageing process of the heart.
- **Engage in physical activity.** Running for an hour each week can reduce the risk of heart disease by 42%. Walking 30 minutes a day can reduce risk of heart disease by about 18% and stroke by about 11%. Walking to work is an effective way to integrate activity into daily life.
- **Eliminate tobacco.** Tobacco is one of the most important risk factors to control. Quitting will improve "good" cholesterol, reduce blood clotting, and decrease the chance of blockage of a blood vessel.

Heartfile is pleased to be part of World Heart Day, which is run by the World Heart Federation's member organizations in 100 countries. The aim of this day, which is celebrated globally, is to increase awareness of heart disease and stroke and the importance of a heart-healthy lifestyle. Around the world on Sunday, people will be participating in activities such as health checks, walks, runs, jump rope, fitness sessions, public talks, stage shows, scientific forums, exhibitions, concerts, carnivals, and sports tournaments. For more information about World Heart Day, including resources and tips for organizing activities, visit www.worldheart.org.

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In practice

A simple, inexpensive health systems approach that gives providers and patients information about ways to control blood pressure can be more effective than interventions that only target health professionals.

A large randomized controlled trial conducted in Nashville, Tennessee, US evaluated the effectiveness of healthcare provider and patient interventions on BP control. The study sample consisted of 182 health care providers and 1341 predominately male US veterans with uncontrolled hypertension who were only taking one antihypertensive medication. Average pre-intervention BP was 157/82 mmHg with similar BP levels observed in all three study groups. Approximately 40% of the total study sample used ACE inhibitors, 25% took calcium channel blockers, 15% diuretics, and 12% received beta blockers as their antihypertensive medication.

Providers were randomly assigned to one of three groups:

- **Provider and patient education group:** Providers received electronic notification of the patient's most recent BP reading and a web link to the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure¹; patients received personalized letters with information about hypertension, lifestyle, behavioral strategies to lower BP, and a list of additional resources.
- **Provider education group:** This group received the same provider information described above; there was no patient intervention.
- **Control group:** Physicians in the control group received only an e-mail message explaining the intervention

Sixty percent of those in the patient and provider education group had their BP controlled in contrast to 47% in the control group and 41% in the provider education group. The most common medication added was a diuretic, which was associated with improved BP control even after controlling for the use of other pharmacologic agents.

"Improving blood pressure control through provider education, provider alerts, and patient education. A cluster randomized trial," Ann Intern Med 2006;145:165-175.

¹ <http://www.nhlbi.nih.gov/guidelines/hypertension/>

Knowledge of modifiable risk factors of heart disease among patients with acute myocardial infarction in Karachi, Pakistan: a cross sectional study

Reviewed by Ambar Kulshreshtha
ProCOR Contributing Editor

Authors: Muhammad S Khan, Fahim H Jafary, Tazeen H Jafar, Azhar M Faruqui, Syed I Rasool, Juanita Hatcher, and Nish Chaturvedi

Reference: BMC Cardiovascular Disorders 2006; 6:18
doi: 10.1186/1471-2261-6-18

Purpose of the study: To estimate the level of knowledge of risk factors of heart disease in patients with cardiovascular diseases in Pakistan.

Location of the study: National Institute of Cardiovascular Disease, Karachi, Pakistan.

Study design: Hospital-based cross-sectional study

Methods: The study was conducted on a sample of individuals who were hospitalized with their first acute myocardial infarction at the National Institute of Cardiovascular Disease (NICVD) in Karachi from July 2003 to February 2004. A standard questionnaire (from published studies) was used by a trained research medical officer to interview 720 subjects.

Interviews were conducted in Urdu, the national language of Pakistan. Knowledge was assessed of four modifiable risk factors of heart disease: fatty food consumption, smoking, obesity, and exercise. Participants knowing three out of four risk factors were regarded as having a good level of knowledge of CVD risk factors.

A multiple logistic regression model was constructed to identify the determinants of good level of knowledge.

Results: The response rate was 100% with 78% of the subjects being male. The mean age was 54 (11.66) years of which only 16% had completed more than 10 years of education. A mere 42% of the study population had a good level of knowledge of CVD risk factors and only 143 (20%) participants correctly identified the relationship of all four modifiable risk factors to heart

disease

Analysis revealed that 665 (92%) had good level of knowledge about the association of fatty food consumption with heart disease, 597 (83%) were able to correctly identify the association of smoking with heart disease, 302 (42%) were knowledgeable about the association of obesity with heart disease, and only 178 (25%) knew about the protective effect of exercise.

Subjects of Sindhi ethnicity who had more years of formal education, a higher level of physical activity, lived within a nuclear family system, or did not use tobacco were more likely to have a good level of knowledge of modifiable risk factors of heart disease. In this study there was a strong, positive, and independent association between the level of education and a good level of knowledge of modifiable risk factors of heart disease.

Discussion: People of South Asian descent have one of the highest risks of CVD in the world. It is likely that escalation of the global CVD epidemic will be most marked in developing nations like Pakistan and India, which are ill-equipped to handle the burden of cardiovascular diseases. Coupled with poor literacy rates and lack of awareness of disease symptoms, this will result in even worse disease outcomes.

A preventive approach is the most effective way of combating the cardiovascular disease epidemic in low-resource settings. Educational level is one of the predictors of knowledge of healthy life styles. Knowledge of these modifiable risk factors for heart diseases has been identified as a prerequisite for change in behavior and is often targeted by prevention programs. It is assumed to be a key component of behavioral change decision making and provides cues for action.

Conclusion: These findings highlight a striking lack of knowledge about the modifiable risk factors for heart disease among subjects who were admitted with acute myocardial infarction in Pakistan. The results of this study have also helped to identify segments of the population who need to be targeted with educational interventions. These at-risk groups include tobacco users, people who have not completed high school education, people with a sedentary lifestyle, those living in an extended family system, and those of Urdu-speaking ethnic origin. This study calls for aggressive and targeted educational strategies in the Pakistani population.

Link to abstract and full text of article:

<http://www.biomedcentral.com/content/pdf/1471-2261-6-18.pdf>

Prevention activities *around the world*

Bangladesh: A cycle journey through the capital of Bangladesh followed by a public rally was recently organized to protest the country's 69.5% tax on bicycles. In contrast, the tax on cigarettes currently ranges from 35-65%. At the rally, the chairman of the National Board of Revenue was presented with a petition to eliminate the bicycle tax and raise tobacco taxes, which activists claim would yield more government revenue and decrease medical costs of treating tobacco-related diseases.

China: In non-smoking Chinese women, exposure to environmental tobacco smoke is related to increased mortality from lung cancer and cardiovascular disease. Data analyzed from over 72,000 women who never smoked determined that exposure to their husband's tobacco smoke increased mortality from all causes and cardiovascular disease. Environmental tobacco smoke at work was associated with increased mortality from cancer, especially lung cancer. *BMJ 2006;333:376*

Cuba: The Cuban government is offering fully-funded scholarships to Pakistani students for graduate studies in general comprehensive medicine, according to the Higher Education Commission of Pakistan. Students must be Pakistani nationals, born between 25 August 1981-24 August 1989, and meet grade requirements. Students will be required to learn Spanish and complete a one-year language-training program in Cuba. For information contact Rezwana Siddiqui, Project Director (FFSP-Cuba), HRD Division, Higher Education Commission, at cuba@hec.gov.pk.

India: Medical students in India and Pakistan are using telemedicine technology to exchange information and share academic and patient care knowledge. The telemedicine exchange aims to create a medical resource base from which both countries can benefit. India and Pakistan share similar health issues such as low doctor ratio and urban-rural disparity of medical facilities. The project is operated by the Holy Family Hospital, Rawalpindi, Pakistan and Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, India. The project's long-term goal is to connect medical colleges and hospitals from the South Asia region.

Japan: The Ministry of Health, Labor, and Welfare plans to start a "Smoking kills your looks" campaign in 2007. The campaign will distribute leaflets in beauty salons; the leaflets will describe how smoking damages skin, teeth,

and gums, among other things. While smoking rates in men have decreased by 3.5% from the previous year, smoking rates increased 0.7% among women.

Korea: Public service advertisements are being aired on national television and cable networks as part of the Ministry of Health and Welfare's anti-smoking campaign. The advertisements feature different kinds of relationships-- friendship, love, and family--with the general message: "If you love someone, help him or her quit smoking." The Ministry hopes to lower the smoking rate for male adults from 47.5% to 30% by 2010.

Spain: Middle-aged to elderly individuals have shown reduced risk of heart disease when they ate a Mediterranean type diet, regardless of whether it was supplemented with olive oil or supplemented with mixed nuts. A trial, conducted in Barcelona, studied 722 men and women considered to be at high risk for CHD based on the presence of either diabetes or three or more CHD risk factors. Participants were randomly assigned to a low fat (control) diet or to one of two Mediterranean type diets--one supplemented with virgin olive oil or one which included free packets of mixed nuts such as walnuts, hazelnuts, and almonds. Individuals assigned to the low-fat diet were advised to reduce their intake of all types of fats and were provided with recommendations to follow a diet according to American Heart Association guidelines. Individuals who received either Mediterranean diet were asked to increase their consumption of vegetable fats and oils. After three months, adiposity was slightly reduced in all groups while participants in the two Mediterranean diet groups had lower levels of BP, serum glucose, and serum lipids than those randomly assigned to the low-fat diet group; levels of C-reactive protein declined only among participants randomly allocated to the Mediterranean diet plus olive oil group. *Ann Intern Med 2006;145:1-11*

US: Smaller plates and spoons may reduce the amount of food consumed. The recent US study showed that people with larger bowls unknowingly served themselves 31% more ice cream than did those with smaller bowls. Servings also increased by 14.5% among those with larger serving spoons, regardless of the size of the bowl. Altogether, those with large bowls and large serving spoons served themselves -- and ate -- nearly 57 percent more ice cream than those with smaller bowls and spoons. What makes this study particularly telling is that the participants were nutrition department faculty, staff, and graduate students. Based on the findings, the researchers suggest that people who are obese or overweight may benefit from using smaller bowls and spoons at home to reduce over-consumption. *Am J Prev Med 2006; 31:240-43.*

CVD Resources

Diabetes Voice

The quarterly magazine of the International Diabetes Federation covers developments in diabetes care, education, prevention, research, health policy, economics, and themes related to living with diabetes. Available in English, Spanish, and French. Free subscriptions can be made through the website, regular mail or by telephone. Online Subscription: www.diabetesvoice.org/subscribe/
Download PDFs: www.diabetesvoice.org/issues/
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Eldis Guide to Effective Use of the Internet

Researchers may find this guide helpful in making the most of information sources available on the internet. It offers descriptions of well-known internet resources such as Google and suggests how their use can be best applied to development research; discusses how to use journal content databases and how to access journal articles free of charge; points out the benefits of using blogs and RSS newsfeeds; and provides links to other free internet training guides. A PDF (246 KB) is downloadable from the website: www.eldis.org/internetguide

Millennium Development Goals Report 2006

The MDG Report 2006 contains the latest, most comprehensive figures available based on a master set of data compiled by the Interagency and Expert Group on MDG Indicators to guide international cooperation and national action. A PDF is downloadable from the website (1.36 MB): <http://mdgs.un.org/unsd/mdg/Default.aspx>

Price Availability and Affordability: An International Comparison of Chronic Disease Medicines

The World Health Organization and Health Action International compiled this report on the price, availability and affordability of 14 chronic disease medicines for the treatment of asthma, diabetes, epilepsy, hypertension and psychiatric disorders. The report analyzes data from 30 surveys in all regions of the world using the WHO/HAI price measurement methodology. Print copies with an accompanying CD-ROM are available free of charge by emailing edmdoccentre@who.int or darec@who.int. A downloadable PDF is available on the website: <http://mednet3.who.int/medprices> and .

Global CVD Calendar

World Heart Day - How Young Is Your Heart?

September 24, 2006

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11th World Congress on Internet in Medicine

October 13-20, 2006

Toronto, Ontario, Canada

www.ehealthcongress.org geysenba@uhnres.utoronto.ca

October: Youth Against Tobacco Month 2006

International Society of Hypertension Scientific Meeting

October 15-19, 2006

Fukuoka, Japan

www.congre.co.jp/ish2006 ish2006@congre.co.jp

Joint World Congress on Stroke

October 26-29, 2006

Cape Town, South Africa

www.kenes.com/stroke2006 stroke2006@kenes.com

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Heartfile (www.heartfile.org) is a Pakistan-based non-profit, health-sector NGO recognized worldwide for its pioneering contributions in health policy, public health planning, and disease prevention and control. Heartfile focuses on developing innovations in the health sector, contributes to knowledge in the areas of health policy and public health planning for low-resource settings, and forms the empirical basis for health system reforms within the framework of an integrated approach to the prevention and control of chronic diseases.

ProCOR (www.procor.org) is a global health communication network promoting cardiovascular health in low-resource settings. ProCOR uses email and the internet for the exchange of timely, accurate, and relevant information among a diverse global community involved in medicine, public health, policy, and research.

The CVD Prevention global news update compiles recent news about advances in heart health knowledge and practice around the world. To receive regular email updates and become part of ProCOR's discussion forum, send an email to procor-join@healthnet.org or visit www.procor.org.

We invite you to contribute your ideas, experiences, and suggestions about this newsletter by emailing Catherine Coleman, Editor in Chief, ProCOR ccoleman5@partners.org

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