The 16th Conference on Health Care of the Chinese in North America

Health Disparities in Chinese, 2012: From Bench to Bedside

PROCEEDINGS

New York, NY

Hosted By Chinese American Medical Society
An Activity of The Federation of Chinese American and Chinese Canadian Medical Societies (FCMS)
16th Conference on Health Care of the Chinese in North America
Health Disparities in Chinese, 2012: From Bench to Bedside

Saturday November 10, 2012 – Sunday November 11, 2012
Bank of America Conference Center, New York, NY

Hosted By Chinese American Medical Society
An activity of the Federation of Chinese American and Chinese Canadian Medical Societies
November 10, 2012

Chinese American Medical Society
41 Elizabeth St, Suite 600
New York, New York 10013

Dear Friends,

It is my pleasure to congratulate the Chinese American Medical Society (CAMS) on your 16th Conference. In 1982, the Federation Conference was founded in San Francisco to bring together Chinese American and Chinese Canadian medical societies and physicians in the interest of solving the health problems of the Chinese in North America. This year, I would like to commend CAMS for bringing its rich tradition of connecting physicians interested in the health and wellness of Chinese Americans.

In addition to concentrating efforts and resources on the health problems many Chinese Americans may face, CAMS has made an invaluable contribution to the Chinese American community by promoting the scientific association of medical professionals of Chinese descent. CAMS has gone even further, establishing and funding scholarships for medical and dental students within the community, helping create a bright future for Chinese American medical professionals across the nation. Under the current leadership of Dr. Yung, the current President of the Board of Directors, and with the vision set forth by past Presidents Dr. Chiu and Dr. Chin, I am confident that CAMS will continue to be an enormous asset to not only the Chinese American medical community, but to all Americans.

On behalf of the United States House of Representatives and the people of the 32nd Congressional District, I offer my best wishes for your continued success.

Congratulations and enjoy this wonderful event tonight!

Sincerely,

JUDY CHU, Ph.D.
Member of Congress, 32nd District
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Chinese American Medical Society

November 10, 2012

Dear Conference Attendees,

On behalf of the Chinese American Medical Society (CAMS) it is my pleasure to welcome you to the 16th Conference on Health Care of the Chinese in North America. We are honored and delighted to once again host the Federation of Chinese American and Chinese Canadian Medical Societies (FCMS) biennial conference.

The need for knowledge about health care disparities in the Chinese in North America continues to be a major problem in the treatment for our patients. We hope that this conference will provide everyone with a place to not only share their experiences and education, but to inspire others in the fight to eliminate many of the obstacles that continue to be barriers to care.

I would like to thank Dr. David T.W. Chiu, Conference Chairman, Dr. Victor Chang, Program Committee Chair and the Program Committee for their commitment and dedication to ensure that this conference is an enriching experience for all. We would also like to thank all of our sponsors and exhibitors for their support of this conference and CAMS. And finally we are indebted to our speakers- all of whom are dedicated to making strides in the elimination of health disparities in Asian Americans. We salute all of you.

Sincerely,

Raymond Yung, M.D.
President

Chinese American Medical Society

Raymond Yung, M.D.
President

Chinese American Medical Society
November 10, 2012

Dear all:

On behalf of the FCMS, I would like to take this opportunity to congratulate and give a big “thank you” to Dr. Raymond Yung and CAMS for hosting and organizing the 16th Conference on Health Care of the Chinese in North America. CAMS, one of the most active members of the federation, has done an exemplary job in organizing this year’s conference. This biennial conference has an important place in the history of FCMS as it helped to initiate the FCMS organization itself. The conference facilitated dedicated visionary physicians caring for the Chinese population in North America to gather together and it has remained one of the major events for FCMS currently.

Dr. David Chiu, one of the founding fathers of our FCMS, has shown great leadership over the years for FCMS, and readily demonstrates this once again as this year’s Conference Chair. Dr. Victor Chang, who has been orchestrating the Research Subcommittee of FCMS, is to be congratulated for organizing this spectacular conference with top-notch speakers as the Program Chair. The first day of the scientific program covers a wide spectrum of major and prevalent diseases, including cardiovascular diseases, diabetes, cancer, hepatitis, and myopia. The latest advances of all of these diseases and how they apply to the Chinese population will be of interest to both clinicians and researchers. Dr. Chang and his committee has innovatively organized two parallel tracks on the second day - one stream on clinical practice on current hot topics such as pain, mental health, and palliative care, and the other stream on research, which will undoubtedly continue to solidify the research network that FCMS is building. Specifically, the FCMS has endorsed hepatitis B, breast cancer, and depression/suicide as the top 3 current priority areas for research.

This conference, thus, once again serves as a major unifying force for all of us to come together, learn from each other, and advance our knowledge in the service of working to reduce health disparities facing our Chinese population, which in essence, is furthering the actual goals and objectives of FCMS. We are proud to uphold this tradition as a federation, and we would like to invite all of you to become active members of FCMS, as we collectively explore innovative ways to advance the clinical dialogue and research to provide better care for our patients.

Yours sincerely,

Kenneth Fung, M.D., FRCPC MSc
Chair
Federation of Chinese American and Chinese Canadian Medical Societies
Ladies and Gentlemen,

Welcome to the 16th Biennial Conference on Health Care of the Chinese in North America. This counts the fifth time when members of CAMS have the honor to host the conference in New York City. It is my privilege to have served in each one of the five conferences in various capacities and indeed my pleasure to witness its attendance grow, enthusiasm escalate, intellectual content sublime.

This year, we would like to invite you to take part in an expedition thoughtfully designed by our program Chair Dr. Victor Chang and his committee. We are going to explore health and health care of Chinese in North America from a bio-psychosocial perspective. Together, we would review evidence for disparities in risk factors, prevalence and outcome, to deliberate on the implication of disparities for health care delivery and disease management, and to develop research program to minimize disparities. The focus is on Chinese, but the knowledge we gain and the principle we learn will be beneficial to all mankind.

In addition to the nutritious scientific program, there are stupendous lectures to be delivered by our scientific awardee Professor George King, keynote speaker Dr. Kenneth Chu and honored lecturer Dr. Gordon Fung, Dr. Clifford Chao and Dr. Kiang Liu, which will assuredly open our eyes and stimulate our mind. Please sit back and enjoy the journey and be pampered by the gracious hospitality of our President Dr. Raymond Yung.

David T.W. Chiu, M.D., F.A.C.S., F.A.A.P.
Conference Chairman
President Emeritus
Chinese American Medical Society
November 10th, 2012

To our Conference Attendees,

On behalf of our Program Committee, I welcome you to the 16th Biennial Scientific Conference of the Federation of Chinese Canadian and Chinese American Medical Societies, and the 49th Annual Scientific Meeting of the Chinese American Medical Society.

The goals of our program committee are to provide a forum for education and discussion about medical advances, with special attention to those relevant for the health of the Chinese population in Canada and the United States. These goals are shared with the Federation, and our fellow Chinese Medical Societies. I would like to acknowledge here the participation of the American Chinese Association of Physicians, the Chinese American Independent Practice Association, and the Philippine Chinese American Medical Association, and the support of the CAIPA Foundation, the Henry Lee, M.D. Lectureship, the Henry B Woo, M.D. Foundation, the Julius F. Sue M.D. Memorial Lectureship, and our sponsors, in making this program possible. I would like to thank our speakers, my colleagues in the Federation and CAMS leadership, the Program Committee, and Mrs. Jamie Love and Mr. Jonathan Tsao for their labors in bringing this program to fruition.

Our theme this year, Health Disparities in Chinese 2012, reflects an ongoing health care issue that has important implications for how we assess and manage our patients, and is closely related to major interests in personalized medicine and health care delivery for Asian Canadians and Asian-Americans. We are fortunate to have an outstanding faculty, and even more fortunate to have you, our attendees. Your interest and involvement, your questions, your exchange of thoughts, and the relationships that you renew and start at this meeting, will be what transforms this from a great conference to a memorable one that inspires future efforts.

You will note that Sunday morning has been divided into Practice and Research Tracks. This reflects the increasing scope of knowledge and activities needed to advance our field. Please complete your evaluations, view the posters, and visit the exhibits. We welcome your suggestions for future topics and on how to improve the conference.

Our grandest goal is for participants to become better doctors and health care professionals through these meetings. 曾子曰：「以文會友，以友輔仁」 (論語．顏淵第十二); “Zengzi said: Bring friends together through learning, develop ren through friendship” (Analects 12：24). How much more should this be true in the medical field, where Chinese doctors display the phrase 「仁心仁術」 “the heart and skills of ren” on their office walls?

Victor T Chang, M.D., FACP 
Program Committee Chair 
Federation Research Committee

Note. The translations are mine. For Chinese text on the web, see http://ctext.org/analects/yan-yuan
16th Conference on Health Care of the Chinese in North America

Health Disparities in Chinese 2012: From Bench to Bedside

Hosted by: Chinese American Medical Society (CAMS)

In Cooperation with: Association of Chinese American Physicians (ACAP), Charles B. Wang Community Health Center (CBWCHC), Chinese American Independent Practice Association (CAIPA), and Philippine Chinese American Medical Association (PCAMA).

CME Sponsored by: New York Downtown Hospital

Conference Chairman: David T.W. Chiu, M.D.
Program Chair: Victor Chang, M.D.
Program Committee: Warren W. Chin, M.D.
Danny Fong, M.D.
Alex J. Ky, M.D.
Paul C. Lee, M.D.
Yick Moon Lee, M.D.
Hsueh-hwa Wang, M.D.
Mary Lee-Wong, M.D.

An Activity Of

The Federation of Chinese American and Chinese Canadian Medical Societies (FCMS) with the following member organizations

- FCMS Foundation
- Association of Chinese American Physicians (ACAP), Flushing NY
- Association of Chinese Community Physicians (ACCP), San Francisco, CA
- Chinese American Independent Practice Association (CAIPA), New York, NY
- Chinese American Medical Association of Southern California (CAMASC), Los Angeles, CA
- Chinese American Medical Society (CAMS), New York, NY
- Chinese American Physicians’ Society (CAPS), Oakland, CA
- Chinese Canadian Medical Society (CCMS), Ontario, CA
- Chinese Community Health Care Association (CCHCA), San Francisco, CA
- Chinese Hospital Medical Staff (CHMS), San Francisco, CA
- Eastern Chinese American Physicians IPA, Inc. (ECAP), Flushing, NY
- Philippine Chinese American Medical Association (PCAMA), Scarsdale, NY
- Ventura County American Chinese Medical Dental Association (VCACMDA), Ventura, CA
The Chinese American Medical Society was conceived by a small group of Chinese physicians who met informally in New York City. In 1964, a formal organization called the American Chinese Medical Society (ACMS) was established. In 1986, the name was changed to Chinese American Medical Society (CAMS). The Society is incorporated as a non-profit, charitable, educational, and scientific society. The founders of the Society and the current membership have been guided by the following objectives:

- To promote the scientific association of medical professionals of Chinese descent.
- To advance medical knowledge and scientific research with emphasis on aspects unique to the Chinese.
- To establish scholarships to medical and dental students and to provide endowments to medical schools and hospitals of good standing.
- To promote the health status of Chinese Americans.

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Raymond L. Yung, M.D., President
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Jamie Love, Administrator
Jonathan Tsao, Administrative Assistant

**Conference Chairman:** David T.W. Chiu, M.D., FACS, FAAP
**Program Chair:** Victor T. Chang, M.D., FACP

**Program Committee**
Warren W. Chin, M.D.
Danny Fong, M.D.
Alex J. Ky, M.D.
Paul C. Lee, M.D.
Yick Moon Lee, M.D.
Mary Lee-Wong, M.D.
Hsueh-hwa Wang, M.D.
Conference History

The Conference was founded in 1982 by the Chinese Hospital Medical Staff in San Francisco. The Conference brought together a number of Chinese American and Chinese Canadian medical societies, as well as many North American and international physicians interested in health problems of the Chinese in North America. A steering committee was formed to oversee the continued development of conferences on a biennial basis. In 1994 the Federation of Chinese American and Chinese Canadian Medical Societies (FCMS) was founded. Subsequently, the Conference has been the activity of FCMS. For more information, visit www.fcmsdocs.org.

FCMS Members & Partner Organizations

- Federation of Chinese American and Chinese Canadian Medical Societies (FCMS)
- FCMS Foundation
- Association of Chinese American Physicians (ACAP) (Flushing, NY)
- Association of Chinese Community Physicians (ACCP) (San Francisco, CA)
- Chinese American Medical Association of Southern California (CAMASC) (Los Angeles, CA)
- Chinese American Medical Society (CAMS) (New York, NY)
- Chinese American Physicians’ Society (CAPS) (Oakland, CA)
- Chinese Community Health Care Association (CCHCA) (San Francisco, CA)
- Chinese Canadian Medical Society (CCMS) (Ontario, Canada)
- Chinese Hospital Medical Staff (CHMS) (San Francisco, CA)
- Philippine Chinese American Medical Association (PCAMA) (Scarsdale, NY)
- Ventura County American Chinese Medical Dental Association (VCACMDA) (Ventura, CA)

Previous Conferences

- May 22-23, 1982 San Francisco, CA
- August 18-19, 1984 Los Angeles, CA
- August 23-24, 1986 New York City, NY
- April 22-23, 1988 San Francisco, CA
- June 23-24, 1990 Toronto, Ontario
- June 18-21, 1992 San Francisco
- July 1-3, 1994 New York City
- August 22-25, 1996 Vancouver, British Columbia
- August 20-23, 1998 Los Angeles, CA
- May 25-26, 2002 New York, NY
- October 22-23, 2004 San Francisco, CA
- October 21-22, 2006 New York, NY
- September 27-28, 2008 Toronto, Ontario
- October 8-10, 2010 Los Angeles, CA
FCMS BOARD OF DIRECTOR MEMBERS
2010-2012 TERM

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Sun-hoo Foo M.D.  CAIPA
Huachen Wei M.D.  ECAP
Conference Purpose & Objectives

Program Overview

Scientific knowledge about the health care needs and disparities of the Chinese in North America is rapidly increasing. This conference will feature disparities as a key organizing concept in thinking about health care issues for North American Chinese on both clinical and scientific levels, with the goal of healthy Chinese Canadians and Chinese Americans.

Course Description

The program will include presentations on new developments in a wide variety of fields relevant to Chinese, including cardiovascular disease, diabetes, cancer, palliative medicine, pharmacogenomics, and mental health. In response to popular demand, there will be a series of lectures on research opportunities, and practice seminars. This conference will allow practitioners and researchers to come together to consider ways to improve health care for North American Chinese. A variety of formats, including live lectures, panel discussion, and interactive techniques such as workshops and small group discussions, will be used with follow up evaluation to accomplish the conference objectives.

Conference Objectives

1) To review evidence for disparities in disease risk factors, prevalence, and outcomes for Chinese in North America

2) To discuss the practice implications of disparities for health care delivery and management of disease by health care providers.

3) To discuss research concepts, questions, controversies, and future directions in selected health issues that face the North American Chinese community.

4) To identify common ground between researchers and practitioners in different fields to allow for cross fertilization of ideas, exchange of information, and development of a more cohesive community.

Target Audience

- Physicians, health care professionals, and researchers who are interested in health care problems of the Chinese in North America
Accreditation Statement

New York Downtown Hospital is accredited by the Medical Society of the State of New York (MSSNY) to provide continuing medical education for physicians. New York Downtown Hospital designates this educational activity for a maximum of 9.5 Category I credit as per the AMA/PRA™. Physicians should only claim credit commensurate with the extent of their participation in the activity.
Acknowledgements

We especially appreciate the participation of, and contributions from, the following organizations:

Abbott
American Cancer Society Eastern Division Asian Initiatives
Amgen
Asian American Coalition on Mental Health
AstraZeneca
Bayer
Boehringer-Ingelheim Pharmaceuticals Inc. Pulmonary & Cardiology Department
Boehringer-Ingelheim Pharmaceuticals Inc. Diabetes Department
Boehringer-Ingelheim Pharmaceuticals Inc. Clinical Science Consultant Department
Bristol-Myers Squibb
Chinese Community Health Resource Center
LANtern Lupus Asian Network
Merck & Co., Inc.
Merrill Lynch
Novartis
Otsuka American Pharmaceuticals
Pfizer
2012 FCMS 16th Conference & CAMS 49th Annual Scientific Meeting Faculty

K.S. Clifford Chao, M.D.
Chu H. Chang (Endowed) Professor & Chair, Department of Radiation Oncology Columbia University College of Physicians and Surgeons. Professor and Chief, Division of Radiation Oncology Weill Cornell College of Medicine.

Yen L. Chong, M.D.
Attending Psychiatrist, Department of Neuroscience New York Methodist Hospital, Brooklyn, New York

Kenneth Chu, Ph.D.
Chief, Disparities Research Branch (Retired) Center to Reduce Cancer Health Disparities, NCI.

Lara Dhingra, Ph.D.
Assistant Professor, Department of Neurology & Psychiatry & Behavioral Sciences, Albert Einstein College of Medicine, Bronx, NY. Co-Chief, Research, Department of Palliative Medicine & Pain Management, Beth Israel Medical Center.

Raymond Fong, M.D.
Director, New York & Brooklyn Eye Surgery Centers. Attending Physician, Manhattan Eye, Ear & Throat Hospital & Lenox Hill Hospital.

Gordon Fung, M.D., M.P.H., Ph.D., FACC, FAHA, FACP
Clinical Professor of Medicine, UCSF School of Medicine. Director, Cardiac Services, UCSF Medical Center at Mount Zion.

Albert C. Gaw, M.D., DLFAPA
Clinical Professor of Psychiatry, UCSF School of Medicine

Loli Huang, M.D.
Endocrinologist, Queens Diabetes and Endocrinology

Karen E. Kim, M.D., M.S.
Professor of Medicine, University of Chicago School of Medicine.

George L. King, M.D.
Professor of Medicine, Harvard Medical School Director of Research, Joslin Diabetes Center.
2012 FCMS 16th Conference & CAMS 49th Annual Scientific Meeting Faculty Continued

Alex J. Ky, M.D.
Assistant Professor of Surgery, Mount Sinai School of Medicine.

Richard La Salle Esq.
Health Law Partners, P.C.

Kiang Liu, Ph.D.
Professor in Preventative Medicine, General Internal Medicine, & Geriatrics, Northwestern University Feinberg School of Medicine.

Wenjie Jessie Lu, Ph.D.
Post-Doctoral Research Associate, John P. Hussman Institute for Human Genomics Mille School of Medicine, University of Miami.

Cynthia X. Pan, M.D., AGSF, FACP
Adjunct Associate Professor, Department of Geriatrics and Adult Development, Mount Sinai School of Medicine, New York. Chief, Division of Geriatrics & Palliative Care Medicine, New York Hospital Queens. Chair, Ethnogeriatrics Committee, The American Geriatrics Society

Donna Shelly M.D., M.P.H.
Associate Professor & Associate Director of Research, Division of General Internal Medicine, NYU School of Medicine.
Conference Schedule

SATURDAY NOVEMBER 10, 2012

8:00 - 8:30 AM  
Registration and Breakfast  
Pre Test

8:10 - 8:40 AM  
Opening Remarks

Raymond Yung M.D., F.A.C.S.  
President of the Chinese American Medical Society  
Private Practice

Kenneth Fung M.D., F.R.C.P.C., M.Sc.  
Chair of the Federation of Chinese American and Chinese Canadian Medical Societies  
Associate Professor, Department of Psychiatry, University of Toronto  
Director of the Asian Initiative in Mental Health (A.I.M.) at Toronto Western Hospital of the University Health Network, Toronto

David T.W. Chiu, M.D., FACS, FAAP  
Conference Chair  
President FCMS Foundation  
President Emeritus of CAMS  
Professor of Plastic Surgery and Neurosurgery  
Chief of Hand Surgery, Director of New York Nerve Center  
Institute of Reconstructive Plastic Surgery, Plastic Surgery Department New York University  
Adjunct Professor of Pathology and Cell Biology, Columbia University

Victor T. Chang, M.D., FACP  
Program Chair  
Research Committee FCMS  
Professor of Medicine, UMDNJ  
Attending Physician, VA New Jersey Health Care System
MORNING PROGRAM:

(8:40-10:10 AM) | MODERATOR: Victor T. Chang, M.D., FACP

8:40-9:00 AM  Preventive Cardiology and the MESA Study (CAIPA Foundation Scientific Lecture)
Kiang Liu, Ph.D.
Professor in Preventive Medicine, General Internal Medicine, and Geriatrics
Northwestern University Feinberg School of Medicine

9:00-9:10 AM  Q / A

9:10-9:30 AM  Hepatitis B
Karen E. Kim, M.D., M.S.
Professor of Medicine
University of Chicago School of Medicine

9:30-9:40 AM  Q / A

9:40-10:00 AM  Pharmacogenomics
Wenjie Jessie Lu, Ph.D.
Post Doctoral Research Associate;
John P. Hussman Institute for Human Genomics
Miller School of Medicine, University of Miami

10:00-10:10 AM  Q / A

10:10-10:30 AM  Break/Poster Viewing  *Not for CME*

(10:30-12:00 PM) | Moderator: David T.W. Chiu, M.D., FACS, FAAP

10:30-11:00 AM  CAMS Keynote Speaker:
Hidden Dragon, Crouching Tiger (Asian Cancer Disparities)
(Harry Lee M.D. Memorial Lecture)
Kenneth Chu, Ph.D.
Chief, Disparities Research Branch (Retired)
Center to Reduce Cancer Health Disparities, NCI

11:00-11:10 AM  Q / A

11:10–11:50 AM  Scientific Award lecture
Diabetes
George L. King, M.D.
Professor of Medicine, Harvard Medical School
Director of Research, Joslin Diabetes Center
11:50-12:00 PM   Q /A  
Post Test

12:00-12:20 PM   Lunch * Not for CME

12:20-1:45 PM   Lunch Continued/General Business Meeting/Poster Viewing * Not for CME

AFTERNOON PROGRAM

(2:00 PM-3:00 PM) MODERATOR: Danny Fong, M.D.

2:00-2:05 PM   Pre Test

2:05-2:25 PM   Cardiovascular Disparities
(Henry B. Woo, M.D., Memorial Lectureship)
Gordon L. Fung, M.D., M.P.H., Ph.D., FACC, FAHA, FACP
Clinical Professor of Medicine
UCSF School of Medicine
Director of Cardiac Services
UCSF Medical Center at Mount Zion

2:25-2:30 PM   Q /A

2:30-2:50 PM   The Myopia Epidemic or “Will My Kid Need Glasses?”
Raymond Fong M.D.
Director, New York and Brooklyn Eye Surgery Centers
Attending Physician, Manhattan Eye, Ear and Throat Hospital & Lenox Hill Hospital

2:50-3:00 PM   Q /A

(3:00 PM-4:00 PM) | MODERATOR: Yick Moon Lee, M.D.

3:00-3:20 PM   Nasopharyngeal Cancer (Julius F. Sue, M.D. Memorial Lecture)
K. S. Clifford Chao, M.D.
Chu H. Chang (Endowed) Professor and Chair, Department of Radiation Oncology
Columbia University College of Physicians and Surgeons
Professor and Chief, Division of Radiation Oncology
Weill Cornell College of Medicine

3:20-3:30 PM   Q /A
3:30-3:50 PM  
**Colorectal Cancer**
Alex J. Ky, M.D.
*Assistant Professor of Surgery, Mount Sinai School of Medicine*

3:50-4:00 PM  
Q / A

(4:00 PM- 5:00 PM) | **MODERATOR: Mary Lee-Wong, M.D.**

4:00-4:20 PM  
**Mental Health**
Albert C. Gaw, M.D., DLFAPA
*Clinical Professor of Psychiatry*
*UCSF School of Medicine*

4:20-4:30 PM  
Q / A

4:30-4:50 PM  
**Palliative Medicine**
Cynthia X. Pan, M.D., A.G.S.F., F.A.C.P.
*Adjunct Associate Professor*
*Department of Geriatrics and Adult Development, Mount Sinai School of Medicine, New York*
*Chief, Division of Geriatrics & Palliative Care Medicine, New York Hospital Queens, Flushing, NY*
*Chair, Ethnogeriatrics Committee, The American Geriatrics Society*

4:50-5:00 PM  
Q / A
Post Test

5:00 PM  
**CLOSING REMARKS**
Raymond Yung, M.D.
*President*
*Chinese American Medical Society*
SUNDAY NOVEMBER 11, 2012

8:00- 9:00 AM Registration and Breakfast

<table>
<thead>
<tr>
<th>Time</th>
<th>Practice Seminar</th>
<th>Research Seminar</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00-9:00 AM</td>
<td>Continental Breakfast</td>
<td>Breakfast (Research Breakfast)</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>Pretest</td>
<td>Oral Abstract Presentations</td>
</tr>
<tr>
<td>9:15-9:30 AM</td>
<td></td>
<td>Abstract 13</td>
</tr>
<tr>
<td>9:30 – 9:45 AM</td>
<td>Seminar 2</td>
<td>Abstract 2</td>
</tr>
<tr>
<td>9:45 – 10:00 AM</td>
<td>Seminar 3</td>
<td>Abstract 6</td>
</tr>
<tr>
<td>10:00-10:30 AM</td>
<td>Seminar 4</td>
<td>Research Panel 1</td>
</tr>
<tr>
<td>10:30-11:00 AM</td>
<td>Seminar 5</td>
<td>Research Directions</td>
</tr>
<tr>
<td>11:00-11:30 AM</td>
<td>Seminar 6</td>
<td>Research Panel 2</td>
</tr>
<tr>
<td>11:30 AM – 12:00 PM</td>
<td>Post Test</td>
<td>Succeeding in Academia</td>
</tr>
<tr>
<td>12:00 – 12:15 PM</td>
<td></td>
<td>Next Steps in Research; Post Test</td>
</tr>
</tbody>
</table>

Practice Seminars
(9:00 AM- 12:00 PM) | MODERATOR: Mary Lee-Wong, M.D.

Seminar 1
Improving Care for Diabetes Patients
Loli Huang, M.D.
*Endocrinologist, Queens Diabetes and Endocrinology*

Seminar 2
Immigration Laws and their impact on HIV/ Hepatitis Reporting Obligations
Richard La Salle, Esq.
*The Health Law Partners, P.C.*

Seminar 3
Utilization of Mental Health Resources
Yen L. Chong, M.D.
*Attending Psychiatrist, Department of Neuroscience*
*New York Methodist Hospital, Brooklyn, New York*
SUNDAY NOVEMBER 11, 2012 CONTINUED

Seminar 4
Advance Directives
Cynthia Pan, M.D., AGSF, FACP
Adjunct Associate Professor
Department of Geriatrics and Adult Development,
Mount Sinai School of Medicine, New York
Chief, Division of Geriatrics & Palliative Care Medicine,
New York Hospital Queens
Chair, Ethnogeriatrics Committee, The American Geriatrics Society

Seminar 5
Pain Management
Lara Dhingra, Ph.D.
Quality Improvement
Assistant Professor, Departments of Neurology and Psychiatry and Behavioral Sciences
Albert Einstein College of Medicine, Bronx, NY
Co-Chief, Research, Department of Pain Medicine and Palliative Care, Beth Israel Medical Center, New York, NY

Seminar 6
Making the Treatment
Donna Shelley M.D., M.P.H.
Of Tobacco Use & Part of Care
Dependence a Routine
Associate Professor & Associate Director of Research, a Division of General Internal Medicine, NYU School of Medicine

(9:00 AM- 10:00 AM) | MODERATOR: Warren W. Chin, M.D.
Research Seminars

Seminar 1
Abstract 4

Seminar 2
Abstract 13 (Second Student Prize)

Seminar 3
Abstract 2 (First Student Prize)

Seminar 4
Abstract 6

(10:00 AM- 11:00 AM) | MODERATOR: Victor T. Chang, M.D., FACP
Panel Discussion
Kenneth Chu, Ph.D., Gordon Fung, M.D., M.P.H., Ph.D.
Research
George L. King, M.D., and Wenjie Jessie Lu, Ph.D.

(11:00 AM- 12:00 PM) | MODERATOR: Paul C. Lee, M.D.
Panel Discussion
David T.W. Chiu, M.D., K.S. Clifford Chao, M.D.
Succeeding in Academia
Albert Gaw, M.D., and Karen E. Kim, M.D., M.S.

12:15-12:30 PM Concluding Remark
Preventive Cardiology and the MESA Study
CAIPA Foundation Lecture

Kiang Liu, Ph.D.
Professor in Preventative Medicine, General Internal Medicine, and Geriatrics
Northwestern University Feinberg School of Medicine

Summary

This presentation will discuss the findings of Multi-Ethnic Study of Atherosclerosis (MESA) on the prediction of incident coronary heart disease (CHD) using coronary artery calcium (CAC), a measure of subclinical atherosclerosis. The talk includes:

1. The rationale for studying subclinical cardiovascular diseases and the design of MESA,
2. The relationship of CAC and incident CHD,
3. Ethnic differences in the prevalence of CAC >0 in MESA,
4. The relationship between CAC and incident CHD in MESA,
5. The improvement of using CAC to identify people at high risk for CHD.

The potential application of using the CAC score for the prevention of CHD will be discussed.
Preventative Cardiology and the MESA Study  
(CAIPA Foundation Lecture)

Kiang Liu, Ph.D.
Professor in Preventative Medicine, General Internal Medicine, and Geriatrics  
Northwestern University Feinberg School of Medicine

About the Speaker

Kiang Liu, Ph.D., FAHA, is a Professor in the Department of Preventive Medicine and the Department of Medicine at Northwestern University’s Feinberg School of Medicine. Dr. Liu has research interests in cardiovascular epidemiology and statistical methodology for epidemiologic research, and has authored or co-authored more than 360 papers or book chapters on these topics. He has extensive experience in conducting longitudinal epidemiologic studies, and currently serves as the Principal Investigator of both the Coronary Artery Risk Development in (Young) Adults (CARDIA) Study Chicago Field Center and the Multi Ethnic Study of Atherosclerosis (MESA) Chicago Field Center. He also serves as the Co-PI of several other ongoing longitudinal studies. In addition, he has mentored many domestic and international junior investigators, resulting in his being awarded Northwestern University’s Faculty Mentor of the Year Award in 2010.
The Inaugural CAIPA Foundation Scientific Lecture

The Federation of Chinese American and Chinese Canadian Medical Societies (FCMS) 16th Conference on Health Care of the Chinese in North America

The Chinese American IPA (CAIPA) is the largest Independent Practice Association (IPA) serving the Chinese American community in New York City and one of the most successful IPAs in the region. Currently, CAIPA represents over 660 physicians and affiliates in independent practice serving 350,000 to 400,000 Chinese American members in the greater New York metropolitan area. The CAIPA Board, through its committees and staff, identifies and formulates strategic programs to help CAIPA providers to provide the highest quality patient care and prepare for future opportunities.

CAIPA’s predecessor, the Chinese Physician Partnership (CPP), was formed in 1993 by a small group of Chinese American physicians practicing in Chinatown. Their vision was to work with other health care providers and insurers to organize cost effective, accessible, and high quality and culturally competent health care services to better serve the Chinese American communities of New York. Over the years, the CPP evolved with its work into an IPA, and in 1998, it was formally reorganized into CAIPA.

The CAIPA Foundation was formed in 2007 by CAIPA physician members. The Foundation’s vision is to give back to and serve the broader community through support and promotion of medical and clinical research, health education, development and improvement of culturally competent health programs and services, and provision of scholarships for students in health care fields who are interested in serving the Chinese American community.

CAIPA and its entire membership strongly support the critical and strategic work of the Federation. The FCMS serves as the international platform for the promotion of health of the Chinese in North America. The FCMS biennial scientific conferences provide invaluable opportunities for Chinese American medical scientists and researchers to network and develop collaborations which will result in great strides forward for our shared mission.

CAIPA has instituted the CAIPA Foundation Scientific Lecture as an expression of support for the Conference. We applaud and share the excitement on the great scientific achievements of Dr. Kiang Liu, and all the collaborators in the Multi-Ethnic Study of Atherosclerosis (MESA) funded by the NIH, and are very pleased that Professor Kiang Liu will be delivering the Inaugural lecture. It is our hope that the Scientific Lecture will strengthen the scientific basis for improving health care for our community.
Preventive Cardiology and the MESA Study

Coronary Calcium and the Prediction of Coronary Heart Disease

Kiang Liu, Ph.D.

Overview

- The rationale for studying subclinical cardiovascular diseases and the design of MESA
- The relationship between CAC and incident CHD
- Ethnic differences in the prevalence of CAC > 0 in MESA
- The relationship between CAC and incident CHD in MESA
- Improvement of using CAC to identify people at high risk for coronary events

The Rationale for Studying Subclinical Cardiovascular Diseases and the Design of MESA


<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank</td>
<td>2,471,984</td>
</tr>
<tr>
<td>Heart Disease *</td>
<td>616,028</td>
</tr>
<tr>
<td>Cancer</td>
<td>325,480</td>
</tr>
<tr>
<td>Chronic lower respiratory diseases</td>
<td>141,990</td>
</tr>
<tr>
<td>Cardiovascular diseases (stroke)</td>
<td>154,148</td>
</tr>
<tr>
<td>Accidents</td>
<td>121,902</td>
</tr>
<tr>
<td>Alzheimer’s disease</td>
<td>82,415</td>
</tr>
<tr>
<td>Diabetes</td>
<td>70,533</td>
</tr>
<tr>
<td>Influenza and pneumonia</td>
<td>66,284</td>
</tr>
<tr>
<td>Hepatitis</td>
<td>45,227</td>
</tr>
<tr>
<td>Septicemia</td>
<td>35,927</td>
</tr>
<tr>
<td>All other causes of death</td>
<td>598,111</td>
</tr>
</tbody>
</table>

* Includes 405,309 deaths from coronary heart disease


<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>Number</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Disease</td>
<td>616,028</td>
<td>1</td>
</tr>
<tr>
<td>Cancer</td>
<td>325,480</td>
<td>2</td>
</tr>
<tr>
<td>Chronic lower respiratory diseases</td>
<td>141,990</td>
<td>3</td>
</tr>
<tr>
<td>Cardiovascular diseases (stroke)</td>
<td>154,148</td>
<td>4</td>
</tr>
<tr>
<td>Accidents</td>
<td>121,902</td>
<td>5</td>
</tr>
<tr>
<td>Alzheimer’s disease</td>
<td>82,415</td>
<td>6</td>
</tr>
<tr>
<td>Diabetes</td>
<td>70,533</td>
<td>7</td>
</tr>
<tr>
<td>Influenza and pneumonia</td>
<td>66,284</td>
<td>8</td>
</tr>
<tr>
<td>Hepatitis</td>
<td>45,227</td>
<td>9</td>
</tr>
<tr>
<td>Septicemia</td>
<td>35,927</td>
<td>10</td>
</tr>
<tr>
<td>All other causes of death</td>
<td>598,111</td>
<td>11</td>
</tr>
</tbody>
</table>

From NHLBI Chartbook, 2012.

Percentage of MRFIT Men with 1+, 2+, or 3+ Risk Factors by age group

19-year follow-up for CHD mortality

<table>
<thead>
<tr>
<th>RISK FACTOR STATUS</th>
<th>AGES 35-39</th>
<th>AGES 40-57</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CHD Death</td>
<td>All Other</td>
</tr>
<tr>
<td>Number</td>
<td>1,112</td>
<td>67,572</td>
</tr>
<tr>
<td>1+ RISK FACTORS</td>
<td>98.6%</td>
<td>89.9%</td>
</tr>
<tr>
<td>(97.9-99.3)</td>
<td>(89.6-90.0)</td>
<td>(98.6-99.0)</td>
</tr>
<tr>
<td>2+ RISK FACTORS</td>
<td>65.8%</td>
<td>57.8%</td>
</tr>
<tr>
<td>(83.7-87.9)</td>
<td>(57.4-58.2)</td>
<td>(85.5-86.7)</td>
</tr>
<tr>
<td>3+ RISK FACTORS</td>
<td>46.9%</td>
<td>17.0%</td>
</tr>
<tr>
<td>(44.0-49.8)</td>
<td>(16.7-17.3)</td>
<td>(38.1-39.7)</td>
</tr>
</tbody>
</table>

Adapted from Greenland et al. JAMA. 2002;288:991-7.
Subclinical Cardiovascular Disease (CVD)

- Subclinical disease: No manifest disease, but pathogenic changes have occurred
- Identify people at high risk if subclinical CVD can be detected non-invasively before it produces clinical signs and symptoms

Mesures of Subclinical CVD

Examples:
- Coronary Calcium Score
- Carotid IMT
- Flow Mediated Vasodilation
- Ankle Brachial Index
- Cardiac MRI measures
- Biomarkers

The Relationship Between CAC and Incident CHD

![Graph showing square-root sum of coronary calcium areas (mm) by electron-beam computed tomography vs. square-root sum of atherosclerotic plaque areas (mm) for each of the individual coronary arteries studied (n=38)](image)

Studies on Coronary Calcium as a Predictor of Coronary Events

<table>
<thead>
<tr>
<th>Study</th>
<th>Size</th>
<th>Average Follow-up (Months)</th>
<th>Events</th>
<th>Risk Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detrano et al.</td>
<td>422</td>
<td>(55 ± 11 yrs)</td>
<td>20 MI + cardiac death</td>
<td>OR=4.1</td>
</tr>
<tr>
<td>Arad et al.</td>
<td>676</td>
<td>(55 ± 11 yrs)</td>
<td>19 MI, CABG, PTCA, cardiac death</td>
<td>Calcium score &gt;160 vs. ≤160 OR=35.4</td>
</tr>
<tr>
<td>Arad et al.</td>
<td>676</td>
<td>(55 ± 11 yrs)</td>
<td>19 MI, CABG, PTCA, cardiac death</td>
<td>OR=23</td>
</tr>
<tr>
<td>Secci et al.</td>
<td>326</td>
<td>(66 ± 8 yrs)</td>
<td>32 MI + cardiac death</td>
<td>Calcium score &gt;160 vs. ≤160 OR=2.87</td>
</tr>
<tr>
<td>Agatston et al.</td>
<td>3672</td>
<td>(52 yrs)</td>
<td>36-72 Angina, MI, angiography, CABG, PTCA</td>
<td>Calcium score ≥50 vs. 0 OR=6.87</td>
</tr>
<tr>
<td>Detrano et al.</td>
<td>11964</td>
<td>(68 ± 8 yrs)</td>
<td>44 MI, cardiac death, revasc</td>
<td>No significant improvement of ROC curve area</td>
</tr>
</tbody>
</table>

* Patients with angiography.
* Asymptomatic subjects.
* High-risk subjects.
* High-risk asymptomatic subjects.
* Adjusting for age and CVD risk factors.
* No significant improvement of ROC curve area in addition to CVD risk model.
Multivariable Association Between CAC and Cardiac Events (Hazard Ratio)

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard events</td>
<td>3.86* (1.17-12.70)</td>
<td>1.53 (0.23-10.09)</td>
</tr>
<tr>
<td>Soft events</td>
<td>26.8† (3.72-193.11)</td>
<td>3.08* (1.11-8.58)</td>
</tr>
<tr>
<td>All events</td>
<td>10.46† (3.85-28.40)</td>
<td>2.57* (1.06-6.23)</td>
</tr>
</tbody>
</table>

*0.01 < P < 0.05
†0.001 < P < 0.01


Ethnic differences in the prevalence of CAC > 0 in MESA

MESA

Multi-Ethnic Study of Atherosclerosis

- An NHLBI-sponsored multi-center study investigating prevalence, correlates, and progression of subclinical CVD (i.e., disease detected noninvasively before it produces clinical signs and symptoms) in a population-based sample of 6,814 men and women aged 45-84
- 6 U.S. field centers recruited healthy men and women (~50% each sex) from 4 racial/ethnic groups (42% white, 13% Chinese, 24% African-American, and 21% Hispanic)

Collaborating Centers in MESA

- Northwestern Univ
- University of Minnesota
- Johns Hopkins
- Columbia
- Univ of Vermont
- UCLA (2)
- University of Washington
- New Engl Med Cntr
- Wake Forest
- UCSF

Cohort Characteristics - Men

<table>
<thead>
<tr>
<th></th>
<th>White (n=1218)</th>
<th>African A (n=815)</th>
<th>Hispanic (n=700)</th>
<th>Chinese (n=379)</th>
<th>P Value†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, yrs</td>
<td>63.3</td>
<td>62.8</td>
<td>61.7***</td>
<td>63.1</td>
<td>.009</td>
</tr>
<tr>
<td>% &lt;HS</td>
<td>3.8</td>
<td>12.4***</td>
<td>42.1***</td>
<td>16.7***</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>BMI</td>
<td>27.9</td>
<td>28.8***</td>
<td>28.7***</td>
<td>24.0***</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>Waist, cm</td>
<td>100.8</td>
<td>100.7</td>
<td>100.8</td>
<td>87.7***</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>% current smoker</td>
<td>11.3</td>
<td>19.5***</td>
<td>15.7**</td>
<td>9.9</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>% former smoker</td>
<td>48.8</td>
<td>42.8***</td>
<td>45.3</td>
<td>36.9***</td>
<td>.0003</td>
</tr>
<tr>
<td>Alcohol, dk/wk</td>
<td>6.8</td>
<td>4.4***</td>
<td>5.2***</td>
<td>2.8***</td>
<td>&lt; .0001</td>
</tr>
</tbody>
</table>

Cohort Characteristics - Men, Continued

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>African A</th>
<th>Hispanic</th>
<th>Chinese</th>
<th>P Value†</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBP, mmHg</td>
<td>123.6</td>
<td>130.1***</td>
<td>126.2**</td>
<td>123.5</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>DBP, mmHg</td>
<td>73.7</td>
<td>77.1***</td>
<td>74.8*</td>
<td>74.8</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>LDL-C, mg/dl</td>
<td>117.3</td>
<td>113.5**</td>
<td>118.9</td>
<td>116.7</td>
<td>.006</td>
</tr>
<tr>
<td>HDL-C, mg/dl</td>
<td>45.3</td>
<td>46.8**</td>
<td>42.8***</td>
<td>45.9</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>TG, mg/dL</td>
<td>127.8</td>
<td>105.9***</td>
<td>153.4***</td>
<td>136.2*</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Glucose mg/dl</td>
<td>101.2</td>
<td>108.9***</td>
<td>113.4***</td>
<td>109.0***</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>% Hypertension</td>
<td>36.8</td>
<td>57.1***</td>
<td>38.6</td>
<td>34.6</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>% Diabetes</td>
<td>8.1</td>
<td>20.4***</td>
<td>20.8***</td>
<td>14.1***</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>% Chol Rx</td>
<td>18.4</td>
<td>15.0*</td>
<td>13.2**</td>
<td>13.6*</td>
<td>.008</td>
</tr>
</tbody>
</table>

Cohort Characteristics - Men, Continued

Age adjusted: *p<0.05; **p<0.01; ***p<0.001 compared to White; †P values for overall group comparisons.

Age adjusted: *p<0.05; **p<0.01; ***p<0.001 compared to White; †BP >140/90 or reported to be on antihypertensive medication; ‡Fasting glucose >126 mg/dl or on hypoglycemic medication; §P values for overall group comparisons.
### Cohort Characteristics - Women

|                    | White (n=1313) | African A (n=1019) | Hispanic (n=750) | Chinese (n=404) | P Value
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, yrs</td>
<td>63.0</td>
<td>62.6</td>
<td>62.1</td>
<td>62.8</td>
<td>.26</td>
</tr>
<tr>
<td>% &lt;HS</td>
<td>5.5</td>
<td>11.7***</td>
<td>48.1***</td>
<td>31.3***</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>BMI</td>
<td>27.5</td>
<td>31.3***</td>
<td>30.0***</td>
<td>23.9***</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>Waist, cm</td>
<td>94.9</td>
<td>101.0***</td>
<td>100.5***</td>
<td>86.4***</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>% current smoker</td>
<td>11.7</td>
<td>15.9***</td>
<td>9.8</td>
<td>1.3***</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>% former smoker</td>
<td>39.9</td>
<td>31.3***</td>
<td>21.3***</td>
<td>2.2***</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>Alcohol, dk/wk</td>
<td>3.4</td>
<td>1.9***</td>
<td>1.2***</td>
<td>0.8***</td>
<td>&lt; .0001</td>
</tr>
</tbody>
</table>

Age adjusted; *p< 0.05; **p<0.01; ***p<0.001 compared to White; †P values for overall group comparisons.

### Cohort Characteristics - Women, Continued

|                    | White | African A | Hispanic | Chinese | P Value
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SBP, mmHg</td>
<td>122.4</td>
<td>132.9***</td>
<td>128.3***</td>
<td>125.1*</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>DBP, mmHg</td>
<td>66.9</td>
<td>72.5***</td>
<td>68.4***</td>
<td>69.2***</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>LDL-C, mg/dl</td>
<td>117.1</td>
<td>118.7</td>
<td>119.8</td>
<td>113.9</td>
<td>.01</td>
</tr>
<tr>
<td>HDL-C, mg/dl</td>
<td>50.0</td>
<td>57.0***</td>
<td>52.7***</td>
<td>53.3***</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>TG, mg/dl</td>
<td>126.8</td>
<td>99.2***</td>
<td>143.1***</td>
<td>137.0**</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>Glucose mg/dl</td>
<td>94.8</td>
<td>105.2***</td>
<td>107.9***</td>
<td>102.5***</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>% Hypertension</td>
<td>36.4</td>
<td>61.1***</td>
<td>48.5***</td>
<td>41.3</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>% Diabetes</td>
<td>4.9</td>
<td>17.1***</td>
<td>17.4***</td>
<td>13.3***</td>
<td>&lt; .0001</td>
</tr>
<tr>
<td>% Chol Rx</td>
<td>16.2</td>
<td>18.4</td>
<td>15.5</td>
<td>15.5</td>
<td>.26</td>
</tr>
</tbody>
</table>

Age adjusted; *p< 0.05; **p<0.01; ***p<0.001 compared to White; BP >140/90 or reported to be on anti-hypertensive medication; Fasting glucose >126 mg/dl or on hypoglycemic medication; †P values for overall group comparisons.

### Age-Adjusted Prevalence of Coronary Calcium (CAC) > 20

| Coronary-Artery Calcium Score | White | African A | Hispanic | Chinese | P Value
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12%</td>
<td>31%</td>
<td>31%</td>
<td>22%</td>
<td>.001</td>
</tr>
</tbody>
</table>

*p< 0.05, **p<0.01, ***p<0.001 compared to White.

### The Relationship Between CAC and Incident CHD in MESA

<table>
<thead>
<tr>
<th>Coronary-Artery Calcium Score</th>
<th>Major Coronary Event†</th>
<th>Any Coronary Event</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No./No. at Risk</td>
<td>Hazard Ratio (95% CI)</td>
</tr>
<tr>
<td>0</td>
<td>83/409</td>
<td>1.00</td>
</tr>
<tr>
<td>1-100</td>
<td>38/1728</td>
<td>3.89 (1.72-8.79)</td>
</tr>
<tr>
<td>101-300</td>
<td>24/752</td>
<td>7.08 (3.05-16.47)</td>
</tr>
<tr>
<td>&gt;300</td>
<td>32/833</td>
<td>1.26 (1.1-1.29)</td>
</tr>
</tbody>
</table>

†Major coronary events are myocardial infarction and death from coronary heart disease. Risk is adjusted for log (CAC+1) represents a doubling of the coronary-artery calcium score.

### Risk Factor Adjusted Risk of Incident CHD by CAC Score, MESA

- Differences among all curves are statistically significant (P<0.001).
### Risk of Incident CHD Associated with CAC Score in Four Racial or Ethnic Groups*

<table>
<thead>
<tr>
<th>Racial or Ethnic Group</th>
<th>Major Coronary Event†</th>
<th>Any Coronary Event</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>Hazard Ratio (95% CI)</td>
</tr>
<tr>
<td>White</td>
<td>41</td>
<td>1.17 (1.06-1.30)</td>
</tr>
<tr>
<td>Chinese</td>
<td>6</td>
<td>1.25 (0.95-1.63)</td>
</tr>
<tr>
<td>Black</td>
<td>18</td>
<td>1.35 (1.10-1.67)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>24</td>
<td>1.15 (1.02-1.29)</td>
</tr>
</tbody>
</table>

*CAC denotes coronary artery calcium score and CI confidence interval.
†Major coronary events are myocardial infarction and death from coronary heart disease.
§Hazard ratios were calculated with the use of Cox regression for coronary heart disease (major event and any event) for baseline levels of log2 (CAC+1) after adjustment for risk factors and interactions between racial or ethnic group and coronary calcium score and between racial or ethnic group and diabetes (the only significant interaction). Hazard ratios are calculated on the basis of a doubling of CAC+1.

---

### Improvement of Using CAC to Identify People at High Risk for Coronary Events

**Current Paradigm for Risk Estimation and Treatment: ATP-III**

- **“Intensity of prevention efforts should match the absolute risk of the patient”**
- **Estimate 10-year risk (FRS)**
  - <10%
  - 10-20%
  - >20% or DM
  - Further testing
  - Lifestyle modification
  - Lifestyle and drug therapy

---

### Calculation of the NRI

- **Proportion of events and nonevents correctly reclassified**
  - Events reclassified higher – events reclassified lower
  - Total number of events
  - **PLUS**
  - Nonevents reclassified lower – nonevents reclassified higher
  - Total number of nonevents

---

### Reclassification among intermediate risk participants

- **Among 1847 intermediate risk participants, 39% were reclassified to low risk and 16% were reclassified to high risk**
  - NRI = 0.55 (95% CI 0.41-0.69, P<0.001)
  - NRI = 0.29 for events and 0.26 for nonevents
- **115 events occurred among intermediate risk participants; 48 were among people reclassified to high risk and 15 were among those reclassified to low risk**

---

### Hazard Ratios (HRs) for an Incident CVD, CHD, or Stroke Event in Relation to a 1-SD Increment of Maximal Carotid IMT or CAC Score (MESA 2000-04)

<table>
<thead>
<tr>
<th>Measure*</th>
<th>HR Per 1-SD Increment (95% CI)</th>
<th>Z Statistic</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVD</td>
<td>z Score max IMT</td>
<td>1.3 (1.1-1.4)</td>
<td>4.1</td>
</tr>
<tr>
<td></td>
<td>In(CAC score + 1)</td>
<td>2.1 (1.9-2.3)</td>
<td>8.6</td>
</tr>
<tr>
<td></td>
<td>Multivariable-Adjusted**</td>
<td>1.2 (1.0-1.4)</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td>In(CAC score + 1)</td>
<td>1.6 (1.0-2.2)</td>
<td>7.5</td>
</tr>
</tbody>
</table>

**CVD (n = 159)**
- z Score max IMT                 | 1.2 (1.0-1.4) | 2.5     | .01     |
- In(CAC score + 1)               | 2.5 (2.1-3.1) | 8.8     | <.001   |
- Multivariable-Adjusted**        | 1.1 (1.0-1.3) | 1.5     | .12     |
- In(CAC score + 1)               | 2.3 (1.9-2.8) | 7.6     | <.001   |

**Stroke (n = 59)**
- z Score max IMT                 | 1.4 (1.2-1.8) | 3.5     | .001    |
- In(CAC score + 1)               | 1.6 (1.0-2.5) | 0.8     | .41     |
- Multivariable-Adjusted**        | 1.3 (1.1-1.7) | 2.5     | .01     |
- In(CAC score + 1)               | 1.1 (0.8-1.4) | 0.4     | .71     |

*Adjusted as described in the “Methods” section.

---


**Abbreviations:** CAC, coronary artery calcium; CHD, coronary heart disease; CVD, cardiovascular disease; IMT, intima-media thickness; max, maximum; MESA, Multi-Ethnic Study of Atherosclerosis.

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### CAC Prevalence, Amount and ‘Number Needed to Screen’ Compared with Framingham Risk Score Categories

<table>
<thead>
<tr>
<th>CAC Score Group</th>
<th>Framingham Risk Score Categories (n = 5660)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0-2.5%)</td>
<td>(1730)</td>
</tr>
<tr>
<td>(2.6-5%)</td>
<td>(1045)</td>
</tr>
<tr>
<td>(5.1-7.5%)</td>
<td>(442)</td>
</tr>
<tr>
<td>(7.6-10%)</td>
<td>(779)</td>
</tr>
<tr>
<td>(10.1-15%)</td>
<td>(617)</td>
</tr>
<tr>
<td>(15.1-20%)</td>
<td>(793)</td>
</tr>
<tr>
<td>(&gt;20%)</td>
<td>(254)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Median CAC score</th>
<th>(IQR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;0</td>
<td>28.6</td>
</tr>
<tr>
<td>(IQR)</td>
<td>7.4-91.6</td>
</tr>
<tr>
<td>1</td>
<td>39.7</td>
</tr>
<tr>
<td>(IQR)</td>
<td>11.9-140.6</td>
</tr>
<tr>
<td>2</td>
<td>62.5</td>
</tr>
<tr>
<td>(IQR)</td>
<td>15.9-211.2</td>
</tr>
<tr>
<td>3</td>
<td>71.5</td>
</tr>
<tr>
<td>(IQR)</td>
<td>19.3-257</td>
</tr>
<tr>
<td>4</td>
<td>111.6</td>
</tr>
<tr>
<td>(IQR)</td>
<td>27.7-284.1</td>
</tr>
<tr>
<td>5</td>
<td>134.6</td>
</tr>
<tr>
<td>(IQR)</td>
<td>33.5-427.6</td>
</tr>
<tr>
<td>6</td>
<td>198.6</td>
</tr>
<tr>
<td>(IQR)</td>
<td>56.5-483.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAC &gt;0: n, (%)</th>
<th>N = 2626</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>386</td>
</tr>
<tr>
<td>(22.3)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>411</td>
</tr>
<tr>
<td>(39.3)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>198</td>
</tr>
<tr>
<td>(44.8)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>449</td>
</tr>
<tr>
<td>(57.6)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>394</td>
</tr>
<tr>
<td>(63.9)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NNS (CAC &gt;0)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>579</td>
</tr>
<tr>
<td>(73)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>209</td>
</tr>
<tr>
<td>(82.3)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAC ≥100: n, (%)</th>
<th>N = 1163</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>89</td>
</tr>
<tr>
<td>(5.1)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>132</td>
</tr>
<tr>
<td>(12.6)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>81</td>
</tr>
<tr>
<td>(18.3)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>193</td>
</tr>
<tr>
<td>(24.8)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>205</td>
</tr>
<tr>
<td>(33.2)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>324</td>
</tr>
<tr>
<td>(40.9)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NNS (CAC ≥100)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>139</td>
</tr>
<tr>
<td>(54.7)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAC ≥300: n, (%)</th>
<th>N = 574</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td>(1.7)</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>46</td>
</tr>
<tr>
<td>(4.4)</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>(7.5)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>102</td>
</tr>
<tr>
<td>(13.1)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>96</td>
</tr>
<tr>
<td>(15.6)</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>191</td>
</tr>
<tr>
<td>(24.1)</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>77</td>
</tr>
<tr>
<td>(30.3)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NNS (CAC ≥300)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>139</td>
</tr>
<tr>
<td>(54.7)</td>
<td></td>
</tr>
</tbody>
</table>

---

### Conclusions

- Coronary calcium score is strongly associated with incident coronary heart disease and provides additional predictive information beyond that provided by standard risk factors in four major racial and ethnic groups in the U.S.A.
- However, the CT scan to detect coronary calcium produces radiation exposure that is equivalent to one year’s exposure from natural sources.
- Coronary calcium scores may be used to screen asymptomatic patients who have multiple CVD risk factors or whose Framingham Risk Scores are in the intermediate range.

### Calculation of NRI

**NRI for events: 0.23**

**PLUS**

**= 0.25 (95% CI 0.16-0.34)**

**NRI for non-events: 0.02 (P<0.001)**

---

### Hazard Ratios (HR) for Incident CVD, CHD, or Stroke Event in Relation to Quartiles of Maximal Carotid IMT or CAC Score (MESA 2000-04)

<table>
<thead>
<tr>
<th>Measure*</th>
<th>HR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>z Score max IMT</td>
<td>1 [Reference]</td>
</tr>
<tr>
<td>Multivariable-adjusted</td>
<td>1 [Reference]</td>
</tr>
<tr>
<td>Age-, race-, and sex-adjusted</td>
<td>1 [Reference]</td>
</tr>
<tr>
<td>CAC Score</td>
<td>1 [Reference]</td>
</tr>
<tr>
<td>Multivariable-adjusted</td>
<td>1 [Reference]</td>
</tr>
<tr>
<td>Age-, race-, and sex-adjusted</td>
<td>1 [Reference]</td>
</tr>
</tbody>
</table>

---

### Unadjusted Kaplan–Meier Cumulative-Event Curves for Major Incident CHD by CAC Score, MESA

Rates for major coronary events (myocardial infarction and death from coronary heart disease)

Differences among all curves are statistically significant (P<0.001).
Hepatitis B

Karen E. Kim, M.D., M.S.
Professor of Medicine
University of Chicago School of Medicine

Summary

Hepatitis B causes chronic infection in more than 400 million people in the world. In the United States, between 1.2 million to 2 million people are estimated to live with chronic hepatitis B. Asian-Americans and Pacific Islanders (API) are disproportionately affected. Despite being 4.5% of the total population, the API ethnic group makes up over half of the total number of people with chronic hepatitis B. Chronic hepatitis B causes significant increased morbidity and mortality, with shortened lifespan in those with chronic infection. One in four of these patients will die from either liver failure or liver cancer.

In fact, hepatitis B is widely prevalent and endemic among API ethnic groups. Approximately two out of three of the API's have previously been exposed to hepatitis B, and one in 10 still have chronic infection. Less than half of the API are aware of hepatitis B, its ability to spread, and the potential of vaccination for prevention or treatment to decrease complications. Among those chronically infected with hepatitis B, two out of three were unaware of their diseases. Despite the existence of effective vaccine for over three decades, despite the high mortality associated with hepatitis B, one out of three APIs, who have not been exposed, did not yet get vaccinated to prevent future infection and over 65% with infection don’t know it. We need education, awareness and action.
Hepatitis B

Karen E. Kim, M.D., M.S.
Professor of Medicine
University of Chicago School of Medicine

About the Speaker

Karen E. Kim is a Professor of Medicine, in the Section of Gastroenterology at the University of Chicago, Director of the Office of Community Engagement and Cancer Outreach for the University of Chicago Comprehensive Cancer Center, an affiliate faculty in the Center for the Study of Race, Culture and Politics and Center for Gender Studies. As a clinical educator, my educational interests include health disparities, cultural competency, patient centered communication, cancer prevention and Asian health. I am currently serving a 5 year term on the advisory committee for the Office of Research in Women’s Health of the National Institutes of Health.

As an advocate for ensuring equal access and delivery of health care to underserved populations, I am devoted to build capacity among community based organizations for independent, community directed research. As a community member, faculty and advocate, I currently serve as the President of the Asian Health Coalition, co-founder of the Asian Cancer Prevention Organization, advisory member of the CDC’s Hepatitis B Task Force, board member for the National Council of Asian Pacific Islander Physicians and the Asian Health Foundation, executive board for the American Cancer Society, Illinois Division and the past chair of the American Cancer Society, Illinois Division, Early Detection and Prevention committee.
Pharmacogenomics as a Tool for Personalized Medicine

Wenjie Jessie Lu, Ph.D.
Post Doctoral Research Associate
John P. Hussman Institute for Human Genomics Miller School of Medicine, University of Miami

Summary

Ethnic differences play an important role in drug response. The science of pharmacogenomics has illuminated these differences and allowed for a much more detailed understanding of the mechanisms underlying interethnic variability in drug response. These differences have become important to national regulatory agencies, including the US and Chinese FDA, to researchers and to prescribers. Well described variations in response to alcohol and to benzodiazepines among Asians have now been supplemented by important differences in response to anti-cancer agents such as imatinib (Gleevec), widely used important cardiovascular agents, such as clopidogrel (Plavix), the proton pump inhibitor class of drugs including specifically omeprazole and lansoprazole, etc. As a result, significant segments of the Chinese population may not respond to drugs like clopidogrel and may experience greater acid suppression with proton pump inhibitors. While pharmacogenetic testing offers a means to identify patients carrying genetic variations that influence drug response and provides rationale for therapy stratification, the clinical uptake of genomic medicine still faces financial, legal and ethical challenges.
Pharmacogenomics as a Tool for Personalized Medicine

Wenjie Jessie Lu, Ph.D.
Post Doctoral Research Associate
John P. Hussman Institute for Human Genomics Miller School of Medicine, University of Miami

About the Speaker

Wenjie received her PhD training in Clinical Pharmacology at Indiana University, where she developed a strong interest in pharmacogenomics and personalized medicine. She worked with Dr. David Flockhart on important cytochrome P450 enzymes, their ethnic differences and contributions in inter-individual variability observed in drug response. In particular, she published a seminal series of papers on breast cancer medications, tamoxifen and aromatase inhibitors that described for the first time a new class of medicines to treat breast cancer. Wenjie is now a post-doctoral fellow at the Institute of Human Genomics at the University of Miami, where she is involved in the pharmacogenetic annotation of whole exom sequencing and the clinical implementation of Genomic Medicine.
Pharmacogenomics as a Tool for Personalized Medicine

Wenjie Jessie Lu PhD

Drugs and Their Available Pharmacogenetic Tests
(Most are monogenic tests)

- Abacavir
- Amlodipine
- Benznidazole
- Etorphine
- Ciprodol
- Venlafaxine
- Dihydromyricetin
- Tocophorol
- Nefazodone
- Venlamine
- Tacrolimus
- Cyclophosphamide
- Methotrexate
- Sulfamethoxazole
- Clozapine
- Nitrofurantoin
- Oral hypoglycemic agents
- Warfarin
- Vincristine
- Clopidogrel
- Tapentadol
- Codeine and hydrocodone
- Tamoxifen
- Methadone
- Captopril
- Triptans
- Naloxone
- Hydroxychloroquine
- QT-prolonging Drugs


Pharmacogenomics

Genetic Variations That Influence Drug Response:
- Influence pharmacokinetics (PK)
- Influence pharmacodynamic effects (PD)

CYP2C9 Pharmacogenetics

1011 Subjects

IMs
PMs
EMs
UMs

Rate of Metabolism vs. Metabolic Ratio

0 0.01 0.1 1 10 100

Number of Subjects

The Evolution

- One Gene, One SNP
- One Gene, Multiple Variants
- Multiple Genes, Multiple Variants
- Pathways, Multiple Variants
- All Variants in the Genome

Which Tests Work?

- Analytical Validity
  - Laboratory integrity
- Clinical Validity
  - Accurate biomarker prediction
- Clinical Utility
  - PPV and NPV for disease treatment
**Principles for Valuable Pharmacogenetic Tests**

1. Large variance in treatment outcomes
2. Alternative therapies are available
3. Current predictive ability is low
4. Significant clinical consequences
5. Economically viable

**Pharmacogenomics in Cancer**

**Established Tests:** Imatinib (Gleevec™) and BCR-ABL
Erlotinib (Tarceva) and K-Ras

**Evolving Tests:** Tamoxifen and 2D6
Irinotecan and UGT1A1
Bevacizumab and VEGF
Vincristine and CYP3A5
Cyclophosphamide and CYP2B6
Azathioprine and TPMT

**Variability in Tamoxifen Therapy Outcome**

<table>
<thead>
<tr>
<th>Years</th>
<th>Control Recurrence (%)</th>
<th>Tamoxifen Recurrence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>45%</td>
<td>38.3%</td>
</tr>
<tr>
<td>5</td>
<td>38.3%</td>
<td>26.5%</td>
</tr>
<tr>
<td>10</td>
<td>24.7%</td>
<td>15.1%</td>
</tr>
<tr>
<td>15</td>
<td>15.1%</td>
<td>10.386%</td>
</tr>
</tbody>
</table>

Recurrence (%) for 10,386 women over 5 years. Absolute benefit 18%. NNT = 5.1

**Pharmacogenomics in Psychiatry**

Venlafaxine for Depression as an example

- Blockbuster drug for a common disease
- Variability in efficacy and toxicity
- Prolonged time before efficacy is evident

**Venlafaxine (VEN) Is Metabolized To O-Demethylated-Venlafaxine (ODV) By CYP2D6**

Venlafaxine (VEN) is metabolized to 0-demethylated venlafaxine (ODV) by CYP2D6. To assess CYP2D6 status, VEN + ODV is measured.
CYP2D6 Genotype Associated with Venlafaxine Efficacy


Pharmacogenomics in Cardiovascular Disease

Clopidogrel for Coronary Thrombosis as an example

- A large population of patients treated
- Great variability in both efficacy and bleeding outcomes

Clopidogrel (Plavix®) and CYP2C19

Simon et al. NEJM December 23rd, 2008

Carriers of a CYP2C19 Genetic Variant Experienced More Cardiovascular Events

Mega JL et al, NEJM, April, 2009

Resources

- Pharmacogenetics Working Group (PWG)
  Therapeutic (dose) recommendations for 163 genotype/phenotype–drug combinations comprising 53 drugs and 11 genes

- Clinical Pharmacogenetics Implementation Consortium (CPIC)

Highest-ranked gene/drug pairs, based on the perceived importance of the data linking the drug to the gene variation (2010)
Implementation of Pharmacogenomics and Personalized Medicine

- Pharmacogenomic R & D, Marketing
  - Hospital systems
  - Physicians
  - Pharmacists
  - Nurses
  - Patients
  - etc.

Optimizing Clinical Uptake

1. Simple and user-friendly informatic approaches
2. Education and raising awareness
3. Team approaches involving the whole therapeutic alliance
4. Prospective trials of pharmacogenomic-guided therapy versus standard-of-care
Hidden Dragon, Crouching Tiger  
(Asian Cancer Disparities)

CAMS Keynote Lecture
Harry Lee, M.D. Memorial Lecture

Kenneth Chu, Ph.D.
Chief, Disparities Research Branch (Retired)
Center to Reduce Cancer Health Disparities, NCI

Summary

Until 1998, Asian Americans were considered a model healthy and educated minority.

In 1998, the NCI published cancer incidence rates by major racial/ethnic groups and Asian subgroups. Vietnamese had the highest rates of any racial/ethnic groups in the study. For cervical cancer, the Vietnamese rate was 5 times the rates for Caucasians. For liver cancer, the rate for Vietnamese men was 11 times the rates for Caucasians. Korean women had twice the cervical cancer, 6 times the liver cancer and 4 times the stomach cancer rates of Caucasians. Chinese men and women had 5 times and 3 times, respectively, the liver cancer rates of Caucasians. Clearly, Asians had cancer concerns. The “hidden dragon” of cancer in Asians had been uncovered when data were disaggregated by Asian subgroups.

Realization of the need for special population research in Asian-Americans led to the development of programs and 15 years of funding (to date) on health disparities for all racial/ethnic minorities and other underserved populations.

What have we learned?

1) We need screening and early detection to reduce disparities
2) We need educational materials culturally appropriate and in language community can understand
3) We need more Health care providers, who are the critical link to getting tests.
4) Reductions in disparities result when patients work with their health care providers, and with aid from health care system. Disparities programs can create and promote these linkages.
5) We need to look at and address the non-cancer health problems that confront Asian American communities.

Since 2000, cancer mortality rates for the major cancers have been declining for all the major racial/ethnic groups, except for liver cancer which has been increasing. For liver cancer, Asian rates are the highest although they are declining. The other racial/ethnic groups have seen a disturbing increase in their liver cancer rates. Thus, liver cancer can be viewed as the “crouching tiger”, our next problem, not only for Asian but for all racial/ethnic groups.

Reducing health disparities is a long journey. It began with its first steps in the late 1990s. Along the way, kindred spirits have rallied together to meet the challenges of this common goal. We have seen successes in the development of infrastructures that became the foundation for building a research base for our people. We have seen the fruits of our health providers working to service the needs of our people and our health care system working to provide those services to them. It is this synergy that drives disparities down and elevates our spirits. In the end, traveling on the journey is as important as our destination because we have created milestones and landmarks that our future can build upon.
Hidden Dragon, Crouching Tiger
(Asian Cancer Disparities)

CAMS Keynote Lecture
Harry Lee, M.D. Memorial Lecture

Kenneth Chu, Ph.D.
Chief, Disparities Research Branch (Retired)
Center to Reduce Cancer Health Disparities, NCI

About the Speaker

Dr. Kenneth Chu’s career at the NIH has spanned 4 decades and many areas.

In his first decade, the 1970s, he helped to test over 200 chemicals as carcinogens (Chu et al., 1981). He co-authored over 175 NCI Carcinogen Bioassay Technical Reports.

In his second decade of service, the 1980s, Dr. Chu was first author on the first paper that showed that mammography and clinical breast examination were beneficial for women ages 40-49 in the Health Insurance Plan (HIP) clinical trial (Chu et al., 1988). Within a short period, NCI was recommending mammography, starting at age 40.

In his third decade, the 1990s, Dr. Chu was involved in the analysis of cancer statistics. With NCI co-author, Bob Tarone, he tried to explain the declines in cancer mortality rates for breast, colorectal and prostate cancers, using 1 and 2 year age-period-cohort analyses (Chu et al. 1992). He developed innovative new analyses, such as incidence-based mortality (Chu et al., 1994).

Dr. Chu was assigned to special populations research in the mid 1990s, and realized that Asian Americans were not allowed to participate in special population training programs. In addition, there were no special population programs for Asians. Working with Asian leaders, such as Fred Li (of the Li-Fraumeni syndrome), Moon Chen (NCAB member), Howard Koh (now our DHHS Assistant Secretary of Health), Reginald Ho (first Asian to be the National President of American Cancer Society) and Susan Shinagawa (Noted Asian survivor/thriver) and many other leaders, he was able to change those conditions.

In the fourth decade of service, the 2000s, Dr. Chu aided in the creation of the Center to Reduce Cancer Health Disparities and helped to develop programs for all racial/ethnic minorities and other underserved populations. The centerpiece was the 15 year long set of programs with the goal to reduce cancer disparities by cancer awareness, research and training. These were the $65M Special Population Networks (SPN) (RFA-CA-99-03) and the $95M Community Networks Program (CNP) (RFA-CA-05-012), and now the $103M Community Networks Program Centers (RFA-CA-09-032), and now the Patient Navigation Research Program (RFA-CA-05-19), which is evaluating Patient Navigation in underserved populations. His legacy includes two national Asian centers for reducing cancer disparities, the Asian American Network for Cancer Awareness, Research and Training (AANCART), headed by Moon Chen of Univ. of Calif., Davis and the Center for Asian Health, led by Grace Ma of Temple, University.


Harry Lee, M.D. Memorial Lecture

Dr. Harry Lee was a native of Portland, Oregon. He was a Colonel, Medical Corps, Flight Surgeon, U.S. Army Reserve, Retired, before starting his solo private practice of Internal Medicine in 1958 in San Francisco and continued until 2008.

Dr. Lee was a visionary in the care of Chinese patients. Dr. Lee was instrumental in the inception of the On Lok Senior Health Services, where he served as Medical Director and Senior Medical Consultant, and founder of the Asian Pacific Islander Health Forum, where he served as founding President of the Board.

Dr. Lee was a key person in the Chinese medical community of San Francisco, where he served as Chief of Medical Staff, Chinese Hospital, seven years (1957 and January 1983 to December 1988), longest elected Chief of Medical Staff since founding of the Hospital in 1925. He also served as Medical advisor, Chinese Hospital Board of Trustees (January 1997 to 2008), and was Vice Chairman, Board of Trustees, Chinese Hospital.

Dr. Lee’s advice and leadership were well recognized and widely sought. He was Central Medical Advisor for California Blue Shield of SF, Medicare, Medi-Cal and Champus programs (1968 to 1988). Dr. Lee was a Founding member, Board of Governors, Medical Insurance Exchange of California (1975 to 2006). Dr. Lee was appointed by the Mayor and Board of Supervisors of San Francisco to serve as Member, Health Systems Agency, (1977 to 1981). Dr. Lee was a Member, California Medical Association, former executive board, hospital medical staff section (1985 to 1988) and served on the following committees: California Joint Practice Commission, Comprehensive Health Planning, Health Manpower, Quality Care Review and Ethnic Technical Advisory. He was invited to be Member, Ad Hoc Committee on minority populations, NHLBI and NIH (November 1989 to February 1995).

Closest to Dr. Lee’s heart was the Federation. Dr. Lee was a founding member and Chairman of the Board of the Federation of Chinese American and Canadian Medical Societies. He served as Chairman of the Board (July 1994 to February 1997), and as Executive Vice President (February 1997 to 2008). To honor his memory and dedication, the Board of Directors instituted the Harry Lee, M.D. Memorial Lecture to be delivered at the Biennial Scientific Meeting. This year’s speaker, Dr. Kenneth Chu, is a native of San Francisco, and his pioneering career in the study of disparities was a great source of pride to Dr. Lee.
Hidden Dragon, Crouching Tiger

Kenneth C. Chu, Ph.D.

Perceptions about Asians at National Cancer Institute (NCI) prior to 1998:

Asians were thought to be the Model Minority:
- Educated and Healthy
- Not considered an underrepresented minority in science
- No special population activities

There were little data to indicate that Asians had cancer issues

In 1998, National Cancer Institute (NCI) reports 1988-1992 cancer incidence rates:

- Vietnamese — Highest rates of any group:
  - Cervical Cancer (5 times the rates of whites)
  - Liver Cancer (11 times in men/no data in women))
  - Stomach Cancer (2 times in men/5 times in women)

- Koreans
  - Liver Cancer (6 times in men/women)
  - Stomach Cancer (4 times in men/women)

- Chinese
  - Liver Cancer (5 times in men/3 times in women)

Hidden Dragon:
Asians have cancer concerns

Historic meeting

- In 1999, Asian leaders met with the Director of NCI to discuss the need to include Asians in special population activities

- Results in 15 years of funding for all minority racial/ethnic groups and other underserved populations to reduce their cancer disparities (three – 5 years programs)

National Asian Programs in Reducing Cancer Disparities

- Asian American Network for Cancer Awareness, Research and Training (AANCART)
  - Moon Chen, Univ. of Calif., Davis

- Center for Asian Health
  - Grace Ma, Temple University
Cancer mortality rates have been declining for all the major racial/ethnic groups (except for American Indians/Alaska Natives)

- All Cancers
- Breast
- Cervix
- Colorectum
- Lung
- Prostate

For liver cancer mortality, highest in Asians and increasing rates in other racial/ethnic groups.

Crouching Tiger:

Liver Cancer

Highest Rates in Asian men and women

Rising trends in all major racial/ethnic groups

But Asian liver cancer mortality rates are declining

Factors affecting Individual’s Health Behavior

Community

Knowledge

Individual

Services

Health Care Provider

Health Care System

Recommendations

Lessons Learned from Disparities Programs

Focus on reducing disparities in prevention (vaccination), screening (HBV) and early detection.

Need to work in the community, creating culturally appropriate educational materials that can educate about cancer prevention, screening and early detection.

The health care providers are a critical link in the utilization of medical procedures. They can recommend and request screening tests for their patients. They are one of the most powerful factors in getting the patient to get screening.

The health care system needs to have the procedures available at no or low costs.

Any reductions in cancer disparities are due to the patient, their physician with the aid of their health care system.

Cancer disparities programs can create and promote these linkages.
Reducing disparities is a long journey

Our journey began with its first steps in the late 1990s

The journey brings together kindred spirits

The journey has already created achievements that elevate our spirits

The journey has built milestones and landmarks that our future can build upon
Diabetes and its Complications in Asians and Asian Americans

CAMS Scientific Award Lecture

George L. King, M.D.
Professor of Medicine, Harvard Medical School
Director of Research, Joslin Diabetes Center

Summary

Diabetes is increasing at the epidemic rate in all developed nations. This increase is especially prominent in Asians and in Asian Americans (AA). Diabetes in Asians and AA share similarities and differences compared to other ethnic and racial groups. Similarities include increased risks with increasing weight, sedentary activities, changes in nutrition and other environmental factors. Noticeable differences include low prevalence of type 1 diabetes or juvenile onset of diabetes, increased risks at low body mass index (BMI), visceral fat per BMI, and of renal complications. Studies in AA with a focus on these differences have just begun at the genetic level. Similar at risk genes for type 2 diabetes are found in Asians as other groups, thus environmental factors clearly are the major inducers of this fourfold increase of diabetes in the last 20 years in Asians and AA. Studies in insulin sensitivity and beta cell functions may be different in Asian and AA populations; although, changes in lifestyle and medications such as metformin and acarbose appear to work equally well in AA populations as well as other ethnic and racial groups. Treatments for microvascular diseases such as retinopathy and nephropathy appear to be similar since the pathogenesis of these complications are driven by hyperglycemia. Clearly, more targeted studies regarding the pathogenesis of type 1 and 2 diabetes and their complications, especially diabetic nephropathy, are needed in AA populations in order to identify more specific and better therapies for treatment.
Diabetes and its Complications in Asians and Asian Americans

CAMS Scientific Award Lecture

George L. King, M.D.
Professor of Medicine, Harvard Medical School
Director of Research, Joslin Diabetes Center

About the Speaker

George L. King, M.D., is the Senior Vice President, Chief Scientific Officer, and Head of the Section on Vascular Cell Biology at Joslin Diabetes Center, as well as a Professor of Medicine at Harvard Medical School. He received his medical degree from Duke University School of Medicine. After his residency at the University of Washington Affiliated Hospitals in Seattle, he completed training as both a Research and a Clinical Associate at the National Institutes of Health. He came to Joslin and Harvard Medical School in 1981.

Dr. King’s work focuses on finding the causes of diabetic complications, exploring insulin actions on blood vessels, discovering factors and new treatments for diabetic complications, and understanding the reasons for the high rate of diabetes in Asian Americans. Dr. King has received numerous awards including the Donald Silver Excellence in Research Award from the Juvenile Diabetes Foundation, the Cogan Award from the Association for Research in Vision and Ophthalmology, the Stadie Memorial Award and Lectureship from the Philadelphia Affiliate of the American Diabetes Association, the Alcon Award for Vision Research, the Annual Award for Excellence in Research from the Japan Society of Diabetic Complications and the Harold Amos Diversity Award from Harvard Medical School.

In addition, Dr. King has been active in ADA for over 30 years. His memberships include Scientific Review Committees, Editorial Boards and Associate Editor of Diabetes, New England ADA Chapter, Asian Pacific American Diabetes Action Council (APADAC) Advocacy Committee, Chair of Council on Complications Section, Program Committee of the annual meeting and chairing many ADA meetings and symposiums annually.

Dr. King was bestowed Honorary Professor and Director of the Institute of Endocrinology and Diabetology at Fu Dan University, Shanghai, China; Honorary Professorship of Guangxi Medical University, Nanning, China in 2007; and an Honorary Professorship at Southern Medical University, Guangzhou, Guangdong province, China in 2007. In 2005, Dr. King received the 32nd Annual Person of the Year Award from the Chinese Hospital of San Francisco Board of Trustees and Medical Staff. In 2007, Dr. King was appointed a 3-year term to the Massachusetts Senate as a Member of the Permanent Commission on the Status of Citizens of Asian Descent. In 2011, Dr. King was appointed as the co-chair for the Asian American, Native Hawaiian and Pacific Islanders Diabetes Coalition which was co-sponsored by ADA.
The 16th Conference on Health Care of The Chinese in North America

**CAMS Scientific Award**

Annual Meetings, usually held in mid-November have been a long tradition of the Chinese American Medical Society since its inception. In 1973 the Annual Scientific Award was initiated to acknowledge the achievements of noteworthy physicians and scientists.

**Past Award Recipients**

<table>
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<th>Year</th>
<th>Name</th>
<th>Year</th>
<th>Name</th>
</tr>
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<tr>
<td>1973</td>
<td>Paul N. Yu, M.D.</td>
<td>1992</td>
<td>George Y. Wu, M.D., Ph.D.</td>
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<tr>
<td>1974</td>
<td>K.K. Chen, M.D.</td>
<td>1993</td>
<td>C. Clifton Ling, Ph.D.</td>
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<tr>
<td>1974</td>
<td>Chien-Pien Li, M.D.</td>
<td>1993</td>
<td>Samuel D. J. Yeh, M.D., Sc.D.</td>
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<td>1974</td>
<td>Min-Chiu Li, M.D.</td>
<td>1994</td>
<td>David D. Ho, M.D.</td>
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<td>1975</td>
<td>Chu-Huai Chang, M.D.</td>
<td>1995</td>
<td>Victor J. Dzau, M.D.</td>
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<td>1975</td>
<td>Florence Chu, M.D.</td>
<td>1996</td>
<td>Lan Bo Chen, Ph.D.</td>
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<td>1976</td>
<td>Shih-Chun Wang, M.D., Ph.D.</td>
<td>1997</td>
<td>Chiu-Chen Wang, M.D.</td>
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<td>1977</td>
<td>Peter Kuo, M.D.</td>
<td>1998</td>
<td>Frederick P. Li, M.D.</td>
</tr>
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<td>1978</td>
<td>Shih-Hsun Ngai, M.D.</td>
<td>1999</td>
<td>Stanley Chang, M.D.</td>
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<td>1979</td>
<td>Hsien-Chang Meng, M.D., Ph.D.</td>
<td>2000</td>
<td>Savio L.C. Woo, Ph.D.</td>
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<tr>
<td>1980</td>
<td>Shu-Chien, M.D., Ph.D.</td>
<td>2001</td>
<td>David T.W. Chiu, M.D.</td>
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<td>1982</td>
<td>Ts’ai-Fan Yu, M.D.</td>
<td>2002</td>
<td>Ray C.J. Chiu, M.D., Ph.D.</td>
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<tr>
<td>1983</td>
<td>Choh-Hao Li, Ph.D.</td>
<td>2003</td>
<td>John C.L. Wang, M.D., Ph.D.</td>
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<tr>
<td>1983</td>
<td>Shelley N. Chao, M.D., Ph.D.</td>
<td>2004</td>
<td>Yuman Fong, M.D.</td>
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<tr>
<td>1984</td>
<td>Mark O.M. Tso, M.D.</td>
<td>2005</td>
<td>Chun K. Yip, M.D.</td>
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<tr>
<td>1985</td>
<td>Charlotte Tan, M.D.</td>
<td>2006</td>
<td>Rei-Ke Li, M.D., Ph.D.</td>
</tr>
<tr>
<td>1986</td>
<td>Pei Fei Lee, M.D.</td>
<td>2007</td>
<td>Arthur Liang, M.D., M.P.H.</td>
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<td>1987</td>
<td>Te-Wen Chang, M.D.</td>
<td>2008</td>
<td>T.C. Wu, M.D., Ph.D.</td>
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<td>1988</td>
<td>Chiu-Chen Wang, M.D.</td>
<td>2009</td>
<td>John Fung, M.D.</td>
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<td>1989</td>
<td>Ming T. Tsuang, M.D., Ph.D.</td>
<td>2010</td>
<td>Victor L. Yu, M.D.</td>
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<tr>
<td>1989</td>
<td>Jacqueline Whang-Peng, M.D.</td>
<td>2011</td>
<td>Albert L. Siu, M.D.</td>
</tr>
<tr>
<td>1990</td>
<td>Min-Fu Tsan, M.D., Ph.D.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>Yuet-Wai Kan, M.D.</td>
<td></td>
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</tr>
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</table>
Diabetes and Its Complications in Asians and Asian-Americans

George L. King, MD
Chief Scientific Officer
Joslin Diabetes Center
Professor of Medicine
Harvard Medical School

Prevalence of Diabetes in Asia and the Pacific Islands
Ages 20-79

% Prevalence


Worldwide Prevalence of Diabetes 2000-2030

Hossain et al. NEJM 2007
(million people)

Prevalence of Diabetes among Men and Women in China

Diabetes prevalence in Hawaii by race/ethnicity (ever told by doctor you have diabetes)
2005 (age 18 yrs or older)

<table>
<thead>
<tr>
<th>Race/ethnicity</th>
<th>Number of cases</th>
<th>Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>17,470</td>
<td>5.3</td>
</tr>
<tr>
<td>Japanese</td>
<td>14,594</td>
<td>6.9</td>
</tr>
<tr>
<td>Native Hawaiian</td>
<td>14,375</td>
<td>12.2</td>
</tr>
<tr>
<td>Filipino</td>
<td>12,754</td>
<td>8.1</td>
</tr>
<tr>
<td>Chinese</td>
<td>4,895</td>
<td>8.5</td>
</tr>
<tr>
<td>Other Pac. Islander</td>
<td>2,671</td>
<td>10.6</td>
</tr>
<tr>
<td>Other Asian</td>
<td>1,627</td>
<td>8.0</td>
</tr>
<tr>
<td>Other</td>
<td>1,369</td>
<td>4.2</td>
</tr>
<tr>
<td>Total</td>
<td>71,570</td>
<td>7.3</td>
</tr>
</tbody>
</table>

Diabetes in NYC

NYC Health Department 2007
16th Conference Diabetes and its Complications in Asians and Asian Americans

U.S. Diabetes Prevalence by Ethnic Group

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>% with diabetes</th>
</tr>
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<tbody>
<tr>
<td>European American</td>
<td>0.18</td>
</tr>
<tr>
<td>Cuban American</td>
<td>0.20</td>
</tr>
<tr>
<td>Japanese American</td>
<td>0.21</td>
</tr>
<tr>
<td>African American</td>
<td>0.22</td>
</tr>
<tr>
<td>Mexican American</td>
<td>0.23</td>
</tr>
<tr>
<td>Puerto Rican</td>
<td>0.24</td>
</tr>
<tr>
<td>Pima</td>
<td>0.25</td>
</tr>
</tbody>
</table>

Men and Women, Age 45-74 Years


Two Main Types of Diabetes

Type 1 diabetes
- 5-10% of total
- Common in children
- Insulin required
- Autoimmune destruction of the Islets

Type 2 diabetes
- >90% of total
- Mostly in adults, but increasing in children
- Relative insulin deficiency
- Insulin resistant, obesity
- Sedentary life style, inflammation

Clinical characteristics of 22,000 DM pts in 230 Asian centers (Diabcare-Asia 1998 study)

Age (years) 57.7 ± 12.2
Gender Male 44.4% Female 55.6%
Age at onset 48.7 ± 12.2 (yrs)
DM duration 9.2 ± 6.8 (yrs)
Type of DM Type 1-4.4% Type 2-95%
BMI (kg/m²) 24.4 ± 4.0 < 25 - 61% ≥25 - 39%


Rate of new cases of type 1 and type 2 diabetes among youth aged <20 years, by race/ethnicity, 2002-2003

CDC, National Diabetes Fact Sheet. 2007.
Source: SEARCH for Diabetes in Youth Study. 1997-2003. Non-Hispanic white; AA=African Americans; NH=Non-Hispanic; API=Asians/Pacific Islanders; AI=American Indians

Low Incidence of Type 1 Diabetes in China

Type 1 DM Incidence in Various Countries & in the U.S.

USA

Diabetes in America, 2nd Edition, Fig. 62
Diabetes Care, Volume 16, Number 6, May 1993
Auto-Antibodies to Islet and GAD in Type 1 Diabetes

Genes Or Lifestyle?

Diabetes In Japanese and Japanese Immigrants Age 45-74 Years

Dietary Changes

Standard Definition for Obesity (NHLBI & WHO 1998)

<table>
<thead>
<tr>
<th>Classification</th>
<th>BMI</th>
<th>Risk of co-morb</th>
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<tbody>
<tr>
<td>Underweight</td>
<td>&lt;18.5</td>
<td>Low</td>
</tr>
<tr>
<td>Normal</td>
<td>18.5-24.9</td>
<td>Average</td>
</tr>
<tr>
<td>Overweight</td>
<td>≥ 25</td>
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</tr>
<tr>
<td>Pre-obese</td>
<td>25-29.9</td>
<td>Increased</td>
</tr>
<tr>
<td>Obese I</td>
<td>30-34.9</td>
<td>Moderate</td>
</tr>
<tr>
<td>Obese II</td>
<td>35-39.9</td>
<td>Severe</td>
</tr>
<tr>
<td>Obese III</td>
<td>&gt; 40</td>
<td>Very Severe</td>
</tr>
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</table>


Genes Or Lifestyle?

Dietary Changes

Standard Definition for Obesity (NHLBI & WHO 1998)
**Obesity Trends**

Prevalence of Obesity Among U.S. Adults, by Characteristics

CDC Behavioral Risk Factor Surveillance System (1991-2002); Self-reported data

**Odds Ratio of Type 2 DM By Race and Ethnicity**

<table>
<thead>
<tr>
<th>Category</th>
<th>White</th>
<th>Asian</th>
<th>Pacific Is</th>
<th>Hispanic</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI 26.8 ± 2.0</td>
<td>1.0</td>
<td>2.4</td>
<td>27.8 ± 0.5</td>
<td>27.9 ± 0.1</td>
<td>28.7 ± 0.1</td>
</tr>
<tr>
<td>1.0</td>
<td>1.0(0.7-1.4)</td>
<td>3.1(1.4-6.8)</td>
<td>2.0(1.8-2.3)</td>
<td>2.3(2.1-2.6)</td>
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<tr>
<td>1.0</td>
<td>1.6(1.1-2.2)</td>
<td>3.0(1.4-6.7)</td>
<td>1.9(1.6-2.1)</td>
<td>1.9(1.7-2.2)</td>
<td></td>
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<tr>
<td>1.0</td>
<td>1.6(1.1-2.2)</td>
<td>3.0(1.4-6.7)</td>
<td>1.9(1.6-2.1)</td>
<td>1.9(1.7-2.1)</td>
<td></td>
</tr>
</tbody>
</table>

Model 1, adjusted for age and sex
Model 2, adjusted for age, sex and BMI
Model 3, adjusted for age, sex, BMI, and health insurance status

McNeely: Diabetes Care 2004; 27(1) 66-69

**Proposed BMI standards for overweight and obesity in Asians (compared to Whites)**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Asian</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underweight</td>
<td>&lt;18.5</td>
<td>&lt;18.5</td>
</tr>
<tr>
<td>Normal</td>
<td>18.5-22.9</td>
<td>18.5-24.9</td>
</tr>
<tr>
<td>Overweight</td>
<td>&gt;23</td>
<td>&gt;25</td>
</tr>
<tr>
<td>Pre-obese</td>
<td>23-24.9</td>
<td>25-29.9</td>
</tr>
<tr>
<td>Obese I</td>
<td>25-29.9</td>
<td>30-34.9</td>
</tr>
<tr>
<td>Obese II</td>
<td>&gt;30</td>
<td>35-39.9</td>
</tr>
<tr>
<td>Obese III</td>
<td>&gt;40</td>
<td></td>
</tr>
</tbody>
</table>

WHO Task Force: The Asia-Pacific Perspective: Redefining Obesity and Its Treatment. 2000

**Association between obesity and diabetes prevalence by CODA population groups: BMI ≥30 for obesity**

![Graph](image)

**Estimated percent body fat at three levels of BMI: Whites and Asians**


<table>
<thead>
<tr>
<th>Category</th>
<th>BMI=15 (lean)</th>
<th>BMI=25 (normal)</th>
<th>BMI=35 (obese)</th>
</tr>
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<tbody>
<tr>
<td>Males</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whites</td>
<td>6.5</td>
<td>19.2</td>
<td>31.9</td>
</tr>
<tr>
<td>Asians</td>
<td>10.0</td>
<td>23.6</td>
<td>37.2</td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Whites</td>
<td>15.0</td>
<td>34.2</td>
<td>53.5</td>
</tr>
<tr>
<td>Asians</td>
<td>20.4</td>
<td>36.8</td>
<td>53.0</td>
</tr>
</tbody>
</table>

Courtesy of S. Duvall (unpublished)
Insulin Sensitivity Differs among Ethnic Groups in Healthy Subjects

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Insulin Sensitivity Index (mU/L/mmol/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Hispanic White</td>
<td>6.87</td>
</tr>
<tr>
<td>African American</td>
<td>5.04</td>
</tr>
<tr>
<td>Asian American</td>
<td>4.17</td>
</tr>
<tr>
<td>Mexican American</td>
<td>3.74</td>
</tr>
</tbody>
</table>

*P = 0.0023 vs. Caucasians.

Data are geometric means.


---

Baseline Profile Comparison

<table>
<thead>
<tr>
<th></th>
<th>Asian (n=28)</th>
<th>Caucasian (n=22)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>34.0 ± 8.7 years</td>
<td>33.7 ± 8.2 years</td>
<td>0.62</td>
</tr>
<tr>
<td>Gender</td>
<td>Male 9, Female 19</td>
<td>Male 7, Female 15</td>
<td>0.78</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>61.2 ± 6.0 kg</td>
<td>69.6 ± 9.5 kg</td>
<td>0.007</td>
</tr>
<tr>
<td>Body Mass Index (BMI)</td>
<td>22.9 ± 2.8</td>
<td>23.7 ± 2.4</td>
<td>0.25</td>
</tr>
<tr>
<td>Fat (%)</td>
<td>5.0 ± 0.4%</td>
<td>5.4 ± 0.3%</td>
<td>0.075</td>
</tr>
<tr>
<td>Body Fat %</td>
<td>26.0 ± 5.4%</td>
<td>27.3 ± 7.4%</td>
<td>0.52</td>
</tr>
<tr>
<td>Body Fat Free %</td>
<td>45.5 ± 7.22</td>
<td>45.3 ± 9.97</td>
<td>0.09</td>
</tr>
<tr>
<td>BF systolic (mmHg)</td>
<td>110.1 ± 11.9</td>
<td>111.3 ± 9.9</td>
<td>0.09</td>
</tr>
<tr>
<td>BF diastolic (mmHg)</td>
<td>71.5 ± 7.96</td>
<td>72.2 ± 4.7</td>
<td>0.47</td>
</tr>
<tr>
<td>Insulin 0 (uU/mL)</td>
<td>6.3 ± 4.3</td>
<td>5.1 ± 2.9</td>
<td>0.19</td>
</tr>
<tr>
<td>Insulin 60 (uU/mL)</td>
<td>66.7 ± 46.3</td>
<td>62.3 ± 17.2</td>
<td>0.065</td>
</tr>
<tr>
<td>CRP (mg/mL)</td>
<td>796.5 ± 873.1</td>
<td>2601.2 ± 3169.3</td>
<td>0.019</td>
</tr>
</tbody>
</table>

---

Risk alleles for type 2 diabetes are not different between East Asians and Western populations.

Genome-wide Manhattan plot for the east Asian T2D stage 1 meta-analysis

DOI: 10.1038/ng.2012.67

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Inflammation And Diabetes

Relationship between self-reported racial/ethnic group and median levels of CRP among participants in the Women’s Health Study

Albert: Circulation, Volume 114(5); August 1, 2006.e67-e74

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Diabetes Incidence Rates by Ethnicity

The DPP Research Group. NEJM 12/3:345-406, 2002
Life Style Approach to Prevent T2 Diabetes

Results in Asians or Asian Americans

The Da Qing IGT and Diabetes Study (China)

Diabetes Prevention Program (USA)

Indian DPP-1 (India)

Clinical Study
The Changes in Insulin Sensitivity in Asians Changing from Traditional Asian Diets to Typical American Diets

Asian American Diabetes Initiative
Joslin Diabetes Center

Study Participants

- Healthy Far-East Asians or Caucasians
- Family history of Diabetes (1st and 2nd degree relative)
- Age between 25 – 55 years old
- BMI between 18.5 – 27
- No significant weight change for the past month

Study Protocol and Flow

Intervention

Asian Diet
8 weeks
70% carbs, 15% protein, 15% fat (5400/10000 kcal)

Western Diet
8 weeks
50% carbs, 15% protein, 35% fat (5400/1000 kcal)

Assessment

Control

Asian Diet
8 weeks
70% carbs, 15% protein, 15% fat (5400/10000 kcal)

Western Diet
8 weeks
50% carbs, 15% protein, 35% fat (5400/10000 kcal)

Assessment

Number of participants completed the study (N=40)

Dietary Changes

Tradition Asian Diet
- 40-45 kcal/kg
- 70% Carbohydrates
- 15% protein
- 20% animal protein
- 15% Fat

Typical Western Diet
- 33 kcal/kg
- 50% Carbohydrates
- 16% protein
- 60-80% animal protein
- 34% Fat

Asian Diet Recipes

Most popular items
1. Chicken Dumpling
2. Spicy Tofu Stew
3. Shrimp Fried Brown Rice
4. Mushroom Soup

References:
**Diagram of the Toxins and Cell Signaling Pathways of Hyperglycemia’s Adverse Effects**

- PKC
- PKC MAP K

- **Clinical Stages of Diabetic Retinopathy**
  - No Diabetic Retinopathy
  - NPDR (Nonproliferative Diabetic Retinopathy)
  - BDR (Background)
  - PPDR (Proliferative)

- **VEGF in Human Ocular Fluids**

- **Mean Change in Visual Acuity* with Anti-VEGF Antibodies**

- **Established Treatments for Diabetic Complications**
  - Retinopathy: glycemic control, laser, anti-VEGF (PDR)
  - Neuropathy: glycemic control (Symptomatic Relief)
  - Cardiovascularopathy: insulin sensitizers, antihypertensives, lipid normalizers (to aim at atherosclerosis)
  - Nephropathy: glycemic control, anti-hypertensives, anti-angiotensins (Delay the Progressor)

- **Ethnic Disparities in Diabetic Complications**

  - Hazard Ratio 95% Confidence Interval

  - Myocardial Infarction: Black, Asian, Latino
  - Stroke: Black, Asian, Latino
  - Congestive Heart Failure: Black, Asian, Latino
  - Lower Extremity Amputation: Black, Asian, Latino
  - End-stage Renal Disease: Black, Asian, Latino

* Values that were 3.5 letters or more declined a value of 30

Produced for changes in mean change in visual acuity from monotherapy at the 1-week visit, standard deviation (S.D.): Black: 9.38; Asian: 2.20; Latino: 2.20; and patients with no change (S.D.): Black: 1.30.

Diabetic nephropathy is the primary disease for dialysis in Japan.

The Japanese Society for Dialysis Therapy; 2009

Risk Factors for Intervention
New Information Needed

- Obesity-Visceral & Brown Fat Regulation, Gut Flora,
- Gestational Diabetes-Racial/Ethnic Correct Guidelines
- Sedentary Lifestyle-Comparative Analysis Of Different Forms of Exercise
- Insulin Resistance/Beta Cell Mass/Inflammation
- Ethnic responsive food or drugs
- Nephropathy-Just too much salt?

Thanks to
Asian-American Diabetes Team
Dr. William Hsu
Chihiro Hernandez
Tina Tam
Sophia Cheung
Cardiovascular Disparities

Henry B. Woo, M.D. Memorial Lectureship

Gordon L. Fung, M.D., M.P.H., Ph.D., FACC, FAHA, FACP
Clinical Professor of Medicine UCSF School of Medicine
Director of Cardiac Services UCSF Medical Center at Mount Zion

Summary

Cardiovascular disease such as hypertension is highly prevalent and complications from CV disease (heart failure, stroke) account for a large percentage of mortality in Chinese patients. Multiple surveys in Chinese Canadians and Chinese Americans have documented high prevalence of hypertension, low rates of treatment, low patient awareness of their diagnosis and low adherence rates to medications. This lecture will review data on hypertension, myocardial infarction and heart failure in Chinese Canadians and Chinese Americans, and summarize the evidence for interventions by health care professionals.
Cardiovascular Disparities

Henry B. Woo, M.D. Memorial Lectureship

Gordon L. Fung, M.D., M.P.H., Ph.D., FACC, FAHA, FACP
Clinical Professor of Medicine UCSF School of Medicine
Director of Cardiac Services UCSF Medical Center at Mount Zion

About the Speaker

Gordon Fung, MD, PhD is Director of the UCSF Asian Heart & Vascular Center. He is currently Clinical Professor of Medicine at UCSF School of Medicine and Director of Clinical Faculty Affairs of the Department of Medicine. In addition to having a full-time clinical practice in cardiology, Dr. Fung is Director of Cardiac Services at UCSF Medical Center at Mount Zion and Director of the Electrocardiography Lab at Moffitt/Long Hospitals. Dr. Fung received his M.D. degree from UCSF School of Medicine and completed his internal medicine residency including chief medical residency at Highland General Hospital in Oakland, CA. He completed a clinical cardiology fellowship at the Veterans Administration Medical Center in Martinez, CA. In 2008, Fung was award a PhD in Chinese philosophy by the California Institute of Integral Studies. In 2011, Dr. Fung was recognized as a Fellow in the American Society of Hypertension and a certified specialist in clinical hypertension. His research interests include ethnic disparities in cardiovascular diseases, cardiovascular diseases prevention, advanced electrocardiography, and difficult to treat hypertension.

Dr. Fung has been a pioneer and leader in characterizing cardiovascular problems in Asian Americans, and was a member of the team for the Cardiovascular Call to Action Science Advisory of the American Heart Association. Circulation. 2010 Sep 21; 122(12):1242-52
Henry B. Woo, M.D. Memorial Lectureship

HENRY B. WOO, M.D.
1906-1984

Henry B. Woo, M.D. pioneered the coming generations of American trained surgeons to serve the Chinese community. Oakland, across the bay from San Francisco, was his birthplace, as his parents had fled the ravages of the 1906 earthquake and fire earlier that year.

Following undergraduate studies at the University of California, Berkley, he traversed the country by train for his medical degree at George Washington University School of Medicine in Washington, D.C.

Dr. Woo remained on the East Coast and received his general surgery internship and residency training at Fordham Hospital in New York City. Despite the urging of colleagues and medical personnel there to remain and establish a private practice, he returned home and guided the practice of surgery at Chinese Hospital in San Francisco. As the initial Chinese, western-trained and boarded surgeon to practice at Chinese Hospital, Dr. Woo helped develop humanitarian and medical standards which continue to serve the Chinese and general San Francisco community at large.

Dr. Woo was on the clinical staff in surgery at Stanford University School of Medicine when it was in San Francisco. He also opened the community to professors from the University of California School of Medicine with invitations to operate at Chinese Hospital. Because of his belief in continuing medical education before it was a watchword, he attended local, national and international meetings as well as visited prominent surgeons in the United States and abroad throughout his career.

Elected to the board of the San Francisco Medical Society and president of the Irwin Memorial Blood Bank, Dr. Woo encouraged involvement in organized medicine to further professionalism in the Chinese medical community and to share their expertise and community experience for the benefit of all.

The Henry B. Woo, M.D. Foundation is pleased to acknowledge the Conference which embodies the purposes which he exemplified in his personal and professional life.
The Myopia Epidemic or “Will My Kid Need Glasses?”

Raymond Fong, M.D.
Director, New York and Brooklyn Eye Surgery Centers
Attending Physician, Manhattan Eye, Ear and Throat Hospital & Lenox Hill Hospital

Summary

Whereas rates of myopia have been increasing throughout the world, they have been exploding in the Chinese population. Presently, one in four teenagers has high myopia (6 diopters or greater). Formerly, it was thought that this was purely a genetic trait, but we now recognize that there are environmental/epigenetic factors that are just as important. Proof for this is comes from prevalence studies, showing increasing rates in the newer generations. Rates of myopia also differ between Chinese children raised in Australia compared to Singapore (Rose 2008).

Myopia is a pathologic, not a physiologic response to the environment. It is a major risk factor for the development of glaucoma, cataracts and retinal detachments in adults. Myopic nerve degeneration is a much more prevalent problem than macular degeneration.

Objectives of the talk

• Present data showing the increasing rates and differences between Caucasians and Chinese
• Review of simple optics
• Highlight the increased rates of diseases from myopia
• Delineate questionable as well as possible therapies

References


The Myopia Epidemic or
“Will My Kid Need Glasses?”

Raymond Fong, M.D.
Director, New York and Brooklyn Eye Surgery Centers
Attending Physician, Manhattan Eye, Ear and Throat Hospital & Lenox Hill Hospital

About the Speaker

Dr. Raymond Fong was born in Hong Kong and came to the United States at the age of 5 where he grew up in Manhattan’s Lower East Side. A graduate of Harvard College cum laude, he received his medical degree from Cornell University Medical College. After his internship in Internal Medicine at Beth Israel Hospital, he completed his Ophthalmology Residency at the Manhattan Eye, Ear & Throat Hospital. Dr. Fong now serves the community he grew up in as a physician and community advocate, and participates in clinical trials to test new drugs and surgical devices. Dr. Fong is currently the President of the Chinatown Health Clinic Foundation and a Past President of the Chinese American Medical Society.
THE MYOPIA EPIDEMIC
WILL MY KID NEED GLASSES???

Financial Disclosure

I have been involved during the last three years in clinical research, as a paid principal investigator for several major eye care companies, performing proof of concept, FDA phase I, II and III studies. One or more of these studies are involved with myopia.

“KID PICTURES”

Myopia – Increasing Over Time In Asia (Taiwan)

Myopia – Also increasing over time in the West (USA)

Difference between Chinese and American Data

<table>
<thead>
<tr>
<th></th>
<th>United States</th>
<th>Taiwan / Singapore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence at age 7 or younger</td>
<td>Less than 5%</td>
<td>5% to 15% in some studies as high as 20%</td>
</tr>
<tr>
<td>Teenagers to young adult</td>
<td>10% to 30%, most of myopia in low or moderate myopia (&lt; 6 diopters)</td>
<td>30%, many in the medium to high myopia ranges</td>
</tr>
<tr>
<td>High myopia (&lt; 6 diopters)</td>
<td>Less than 5% overall</td>
<td>Already 25% of 18 year olds</td>
</tr>
</tbody>
</table>
What is Myopia?

• When an object focuses in front of the Retina
  • **Myopia** or nearsightedness
  • The reason it focuses in front is because the eye is **ABNORMALLY** long

• When an object focuses behind the Retina
  • **Hyperopia** or farsightedness
• When an object has two focus points
  • **Astigmatism**, which has to do with the different curvatures of the cornea in different axes
• When the eye focuses on an object as it comes closer, by changing the shape of the internal lens
  • **Accommodation**
• Loss of ability to **accommodate**, which occurs after the age of 40
  • **Hyperopia** or farsightedness

Ways to correct Myopia

• Does not “correct” myopia, only makes the focusing better:
  • Glasses
  • Contact Lenses
  • Laser Vision Correction
  • Cataract Surgery

Myopia is pathologic, not a physiologic process

• The eyeball lengthens, but the corresponding number of cells, the integrity, etc., does NOT correspondingly do so!!!
Alternative Therapies for improving eyesight
- Pinhole glasses
- Relaxation techniques / Eye muscle relaxation techniques
- Neurovision techniques
- Bates method

Other Therapies for improving eyesight
- Questionable, so far no benefit
  - Bifocals / Progressive glasses
  - Undercorrection
  - Orthokeratology
Orthokeratology

Illustrations exaggerated

Possible benefit
- Atropine
- Perezipine

- "Kids no glasses"
Nasopharyngeal Cancer

Julius F. Sue, M.D. Memorial Lecture

K.S. Clifford Chao, M.D.
Chu H. Chang (Endowed) Professor and Chair, Department of Radiation Oncology
Columbia College of Physicians and Surgeons
Professor and Chief, Division of Radiation Oncology, Weill Cornell College of Medicine

Summary

The lecture will review multifactorial etiology of nasopharyngeal carcinoma with attention to genetic predisposition, Epstein-Barr virus (EBV) infection and environmental carcinogens. The advent of radiotherapy has transformed this once lethal cancer into one that is readily curable. The combination of advanced technology and chemotherapy has led to overall survival exceeding 80% in early stage disease. Intensity-modulation of radiotherapy consistently achieves excellent locoregional control. Studies are on-going to develop more potent systemic therapy for distant control.

Translational research will be increasingly important for prevention, early detection and more accurate prognostication/prediction to work toward personalized medicine.
Nasopharyngeal Cancer

Julius F. Sue, M.D. Memorial Lecture

K.S. Clifford Chao, M.D.
Chu H. Chang (Endowed) Professor and Chair, Department of Radiation Oncology
Columbia College of Physicians and Surgeons
Professor and Chief, Division of Radiation Oncology, Weill Cornell College of Medicine

KS Clifford Chao, M.D., a pre-eminent expert in the use of functional image-guided radiotherapy (IGRT) and intensity modulated radiation therapy (IMRT), is the Chairman and Chu H. Chang Distinguished Professor of Columbia University as well as Professor and Chief at Weill Cornell Medical College. He also serves as the Radiation-Oncology-in-Chief at New York- Presbyterian Hospital.

He received a medical degree from Kaohsiung Medical School, Taiwan, in 1982. He trained in Chung Gung Memorial Hospital and later served as an Attending Physician at Mackay Memorial Hospital in Taipei. In 1989, he pursued his research education abroad as a fellow at the Cancer Research Institute in Tokyo, Japan. He then continued at Washington University School of Medicine in St. Louis and was promoted through the ranks to tenured Associate Professor. In 2002, he became the Director of Image-guided Therapy of Radiation Oncology at the University of Texas M. D. Anderson Cancer Center in Houston. He was recruited to New York City in 2008 to lead the clinical and research enterprise of Columbia-Cornell-New York Presbyterian Hospital with more than 350 faculty and staff.

Dr. Chao pioneered clinical research in, and established the standard of care for IMRT. The cancer cure rate is improved with IMRT while the side effects of radiotherapy are significantly reduced. His research in IMRT has revolutionized the management of head and neck cancers. Dr. Chao’s laboratory focus is on a cancer stem cell pathway, Sonic Hedgehog, which led him to utilize functional positron emission tomography (PET) to image the molecular characteristics of each tumor and individualize cancer treatment plans. He is the Principal Investigator of multiple NIH and DOD research grants and has published more than 130 peer-reviewed papers. In addition, as an educator, he serves as the Director of Residency Training Program and authored two widely read textbooks, “Management Decisions in Radiation Oncology” and “Practical Essentials of IMRT”. His pioneering works in image-guided therapy was recognized by the North America Radiological Society (RSNA) and he was named the Orator of Radiation Oncology in 2005 as the youngest scientist ever to receive this honor.

Dr. Chao also founded two start-ups with which he took engineering inventions coupled with clinical know-how from the bench, through FDA approval process, marketing, and to the bed side. His mission is to provide cancer patients around the world with the highest quality and affordable treatment. He currently resides in Manhattan with his wife, Helen, and two children, David and Nick, who are both studying in Columbia University.
Julius F. Sue, M.D. served the Los Angeles Chinese-American community for over 50 years (1947-2002). As one of the first Chinese-American physicians in Chinatown Los Angeles, he worked as a traditional general practitioner who delivered babies and took care of their siblings, parents, and grandparents.

Born in Zhongshan (中山), China in 1914, he immigrated to the United States with his family at the age of 13, and continued his education in Portland, OR. He attended Reed College and the University of Oregon, School of Medicine in Portland, where he graduated with the class of 1941. After his internship at St. Catherine’s Hospital in East Chicago, IL, Julius F. Sue joined the US Army Air Forces, where he served with the 14th Air Force in Georgia, Florida, India, and China alongside with other Chinese-Americans.

In 1947, he started his medical practice in downtown Los Angeles, shortly afterwards, he moved one mile north to the heart of Chinatown Los Angeles. He joined the medical staff at French Hospital, now known as Pacific Alliance Medical Center (PAMC), where he eventually became Chief of Staff. In 1991, he was also named the Chairman of the PAMC Health Foundation. Dr. Sue was one of the founding members of the Chinese American Medical Association of Southern California (CAMASC), formerly known as Chinese Physicians for Chinatown (CPC) in the 1970’s.

Dr. Sue’s office hours always included Sundays and he made rounds on his patients seven days a week, while assisting in surgery and making house calls. Perhaps, he was most proud of encouraging new Chinese-American physicians to begin their medical practice in Chinatown because they would have the opportunity to apply their medical knowledge, enrich their clinical experience, and care for the Chinese patients with a cultural and linguistic sensitivity. Dr. Sue and his wife, Eleanor, are well-respected for their volunteerism and philanthropic spirit. Together, they established scholarship funds at the Oregon Health & Science University, UCLA School of Medicine, and nursing home funds to the PAMC Health Foundation. Their invaluable contributions to the medical community and the Chinese community are forever admirable.
Colorectal Cancer

Alex J. Ky, M.D.
Assistant Professor of Surgery, Mount Sinai School of Medicine

Sponsored by Association of Chinese American Physicians

Summary

Colorectal cancer is one of the leading cancers that affects Asian Americans. This lecture will cover current topics in the field of colorectal surgery.
- Discuss minimally invasive surgery for colon and rectal cancer.
- Review the merits of an anal pap.
- What is new in colorectal surgery? Everything you always wanted to know in colorectal but was afraid to ask.
Colorectal Cancer

Alex J. Ky, M.D.
Assistant Professor of Surgery, Mount Sinai School of Medicine

Sponsored by Association of Chinese American Physicians

About the Speaker

Dr. Alex Jenny Ky is an assistant professor at The Mount Sinai Hospital in New York. A graduate of Brown University and SUNY Stony Brook School of Medicine, Dr. Ky completed a General Surgery residency at Lenox Hill Hospital and a Colon and Rectal Surgery fellowship at Mount Sinai School of Medicine.

Dr. Ky is an expert in laparoscopic colon and rectal surgery, performing complex procedures that few other doctors in the world are able to perform. She is the first person in New York City to use a sacral nerve stimulator and one of the few people in New York City treating fecal incontinence with the use of an artificial anal sphincter. Dr. Ky is specially trained in transanal endoscopic microsurgery (TEM), a new technique which allows some rectal tumors low in the rectum to be removed through the anus, possibly avoiding the need for a permanent stoma and abdominal surgery. She also specializes in stapled transanal rectal resection (STARR) and the procedure for prolapse and hemorrhoids (PPH).

Dr. Ky was appointed as the Medical Director of the Mount Sinai Chinatown practice and she oversees a multidisciplinary healthcare practice providing expert medical care and building a presence for Mount Sinai in Chinatown. Providing the highest quality of care to the community is Dr. Ky’s top priority.

Dr. Ky is also a member of the American Society of Colon and Rectal Surgeons, Chinese American Medical Society, and the Chinese American Independent Practice Association, to name a few. She is also fluent in Cantonese and Mandarin.
Depression & Suicide in Chinese Americans

Albert C. Gaw, M.D., DLFAPA
Clinical Professor of Psychiatry UCSF School of Medicine

Sponsored by Philippine Chinese American Medical Association

Summary

This presentation aims to provide practical information about diagnosis, treatment, recovery, and prevention of depression and suicide in Chinese Americans, particularly amongst Chinese American Youths.
Depression & Suicide in Chinese Americans

Albert C. Gaw, M.D., DLFAPA
Clinical Professor of Psychiatry UCSF School of Medicine

Sponsored by Philippine Chinese American Medical Association

About the Speaker

Dr. Albert Gaw is a board-certified psychiatrist and a Clinical Professor of Psychiatry at the University of California Medical Center at San Francisco. He was formerly a Professor of Clinical Psychiatry at the University of Massachusetts Medical Center and the Boston University Medical Center, as well as a Lecturer on Psychiatry at Harvard Medical School. A distinguished life fellow of the American Psychiatric Association, Dr. Gaw was the first Asian American elected Speaker of the Assembly of the American Psychiatric Association. Dr. Gaw has lectured and published extensively on Cross-Cultural Psychiatry.

吳俊傑醫師是美國加州大學舊金山醫學院的臨床精神病科教授。過去曾任波士頓大學醫學院，以及麻省州立大學醫學院精神科教授，也擔任過哈佛大學醫學院講師。吳俊傑醫師是美國全國精神病科協會卓越終生會員，他也是美國全國精神協會選出第一位亞裔議長，著有多本關於超文化精神病學書集。
**Purposes of presentation**

- To provide practical information about diagnosis, treatment, recovery, and prevention of depression and suicide in Chinese Americans, particularly amongst Chinese American Youths.

---

**What is Depression?**

- Depression is a mood problem
- Mood is a feeling state that lasts for weeks or months, as contrasted for example, temporary shifts of emotions during the day

---

**General Prevalence of Depression**

- About 8-20% of the population will experience depression at some time in their lives
- More common in women than in men

---

**Unique features of depression amongst Asians**

- Asian in Chinatown presenting to a primary care setting and meeting criteria for major depressive disorder (MDD) had received psychiatric treatment
- Many bodily symptoms instead of outright expression of sadness
- Few bilingual and cultural-congruent resources.

---

**References**

2. Gaw AC, Psychiatric Care of Chinese Americans, in Gaw AC (Editor) Culture, Ethnicity and Mental Illness, APPI, 1993
如何識別憂鬱症？
How can we recognize depression?

• 記著這些關鍵字 “Sig E Caps”
  – S: Sleep 睡眠不安
  – I: Interest 失去興趣
  – G: Guilt 內疚感的誇大性
  – E: Energy 精力的減少
  – C: Concentration 注意力的不集中
  – A: Appetite 食慾的降低
  – P: Psychomotor activities 精神運動遲緩
  – S: Suicide ideas 有自殺念頭

抑鬱症的類型
Major Types of Depression

• 主要抑鬱症
  Major depression
• 慢性抑鬱症
  Chronic depression (dysthymia)
• 雙極性抑鬱症
  Bi-polar depression
• 情境抑鬱症
  Situational depression

憂鬱症的原因
Causes of Depression

• 遺傳因素：往往是家人中有情緒障礙的問題
  Genetic factor: Mood disorders tend to run in families

• 社會環境因素:
  – 早期的生活事件可能會引發一個人有憂鬱症：
    母愛剝奪，心理創傷，性虐待等
  - Socio-environmental factors:
    – Early life events may predispose an individual to depression: Maternal deprivation, childhood trauma, etc.

Definition of “Adverse Childhood Experience” (ACE) Scores

ACE score = number of categories endorsed (0-8)

- Emotional Abuse
- Physical Abuse
- Sexual Abuse
- Household Substance Abuse
- Household Mental illness
- Mother Treated Violently
- Incarcerated Household Member
- Parental Separation

(Modified from Anda et al., 2005)
**Depression and Suicide in Chinese Americans**

**Causes of Depression**

- **Socio-environmental factors:**
  - Stress: Immigration, work, family, children’s education, interpersonal conflicts.
  - Introjected aggression (anger)

**Treatment of Depression**

1. **Psychotherapy**
2. **Medications**
3. **Environmental changes**
4. **Brain Stimulation**

**Antidepressant drugs**
- Best when combined with psychotherapy
- Has to be individualized
Comparative Suicide Rates between the United States and Asian Countries: 1970-1994

<table>
<thead>
<tr>
<th>Country</th>
<th>70-74</th>
<th>75-79</th>
<th>80-84</th>
<th>85-89</th>
<th>90-94</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>11.5</td>
<td>12.1</td>
<td>10.4</td>
<td>12.9</td>
<td>12.4</td>
</tr>
<tr>
<td>South Korea</td>
<td>27.0</td>
<td>31.9</td>
<td>26.0</td>
<td>21.0</td>
<td>17.0</td>
</tr>
<tr>
<td>Japan</td>
<td>16.8</td>
<td>18.0</td>
<td>14.5</td>
<td>18.9</td>
<td>17.0</td>
</tr>
<tr>
<td>Taiwan</td>
<td>13.0</td>
<td>10.0</td>
<td>11.0</td>
<td>12.0</td>
<td>-</td>
</tr>
<tr>
<td>Singapore</td>
<td>9.8</td>
<td>10.9</td>
<td>10.7</td>
<td>9.9</td>
<td>12.7</td>
</tr>
<tr>
<td>Philippines</td>
<td>0.6</td>
<td>1.2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Statistics on suicide rates amongst US Minority Groups

- Among Asian Americans, ages 15-24, suicide is the 2nd leading cause of death in year 2000¹

- Asian American University students are more likely than European American students to attempt suicide²

¹http://www.cdc.gov/nchcpi/wisqars/default.htm

Statistics on suicide ideation and attempts in Asian Americans

- Lifetime prevalence of suicidal ideation and attempts in Asian Americans was 8.8% and 2.5%, respectively¹

¹Cheng JK et al., Amer Jour of Psychol 2010.

Statistics on suicide rates amongst US Minority Groups

- Male suicides:
  - Native Americans>Whites>Blacks >Asian Americans

- Female suicides
  - Whites>Native Americans>Asian Americans>Blacks


Age and Gender in US Suicide Rates, 2000

Suicide Rates amongst Asian American Youths

<table>
<thead>
<tr>
<th>Study year</th>
<th>1970</th>
<th>1980</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yu, Chang; Liu &amp; Fernandez (1986)</td>
<td></td>
</tr>
<tr>
<td>Ages 15- to 24-year old</td>
<td>2.98/100,000</td>
<td>6.39/100,000</td>
</tr>
</tbody>
</table>

Socio-cultural factors Associated with Chinese American Suicides

- Acculturation: Biculturally identified students reported lower levels of suicide ideation\(^1\)\(^2\). May be related to language fluency.
- Intact family, less suicidal ideation\(^3\).
- More Asian identified youths under condition of high parent-child conflict were at greater suicidal risk than their Western identified counterpart\(^4\).

\(^1\)Davis 1995; \(^2\)Kennedy et al., 2005; \(^3\)Rudd, 1989; \(^4\)Lau et al., 2002

Racial identity experiences discrimination; anxiety, fears, and worries; and depression are associated with a higher degree of suicidality.

Takahasi, *Suicide and Life Threatening Behavior*, 1989

---

甚麼時候該尋求專家協助
When to seek or refer for professional help

當你有以下強烈的感受時
When you have the following intense feelings:

- 失去控制，有自杀或杀人的感觉和想法。
  Suicidal or homicidal feelings and thoughts.
- 情緒影響工作
  Interfering with work.
- 情緒影響健康
  Affecting your health.

甚麼時候該尋求專家協助
When to seek or refer for professional help

- 一直感覺不快樂
  Chronic unhappiness.
- 一直與人相處有困難
  Affecting your relationship.
- 已無法自己解決問題
  Exhausting your own coping methods

---

Treatment of Suicide Attempts

- Hospitalization:
  - Emergency care
  - Transfer to psychiatric units
- Electro-convulsive Therapy
  - For suicidal depression
- Medications
  - Antidepressants, anti-anxiety, mood regulators

Treatment of Suicide Attempts

- Psychotherapy:
  - Address predisposing and precipitating factors
- Careful follow-up plan after discharge
  - Individual supportive psychotherapy
  - Marital, family, or group therapy
  - Medication managements
  - Readmit if suicidal tendency recurs
Recovery from depressive episode

- Nothing to be shameful about
- Use the crisis to improve oneself:
  - Improve "IQ" about knowledge about depression
  - Improve "EQ" about emotional development and interpersonal relations
  - Improve "SQ" about one's spirituality

Prevention of Suicide

- Warning signs seen as "Prompts": IS PATH WARM
  - I: Ideation
  - S: Substance Abuse
  - P: Purposelessness
  - A: Anxiety
  - T: Trapped
  - H: Hopelessness
  - W: Withdrawal
  - A: Anger
  - R: Recklessness
  - M: Mood Changes

Source: American Association of Suicidology

Prevention of Suicide

- When not to keep a secret!

When your friend has thoughts of hurting him/herself or others

Prevention of Suicide

- Family rearing:
  - Provide early nurturing attachment to infants and children

Prevention of Suicide

- Improve "IQ" -- knowledge about depression and suicide

Prevention of Suicide

- Improve "EQ" -- emotional quotient
  - Emotional growth is as important as physical and intellectual growth
Prevention of Suicide

• Learn to communicate feelings and seek help: Your safety net in times of crises

• Improve SQ spiritual quotient

Cultivate one’s faith, beliefs, view on life, values.

Telomeres and telomerase

• Telomeres are non-coding sequences capping DNA ends that can shorten with somatic cell divisions and serve as a "senescence clock" (a marker of biological age)

• Telomerase is an enzyme that repairs DNA ends and forestalls telomere shortening and has additional non-telomere effects in the cell. Telomerase is decreased by cortisol.

Mindfulness

• Mindfulness meditation enhances control of a person’s thoughts and feelings, thereby allowing redirection of attention away from ruminative thinking and back to the present.

Mindfulness meditation enhances control of a person’s thoughts and feelings, thereby allowing redirection of attention away from ruminative thinking and back to the present.


Purpose in Life in Spiritual Practice of Mindfulness increases telomerase activity

• In mindfulness meditation, practicing purpose in life reduces stress and decreases negative emotionality (increased subjective distress), thus directly and indirectly increases telomerase activity.

• Jacobs et al., Psychoneuroendocrinology 2011

Mindfulness meditation enhances control of a person’s thoughts and feelings, thereby allowing redirection of attention away from ruminative thinking and back to the present.
Mindfulness practice leads to increases in regional brain gray matter density

Participation in Mindfulness-Based Stress Reduction (MBSR) is associated with changes in gray matter concentration in brain regions involved in learning and memory processes, emotion regulation, self-referential processing, and perspective taking.


Resources of help in schools

- School health center
- School counselors
- Dean’s office
- Student’s advisor
- Fellow students, clubs/association

Resources of help in the community

- General Hospital
- Community Mental Health Center
- Good Samaritan Hot Lines
- City, County and State’s Department of Health Services
- Community Agencies
- Private doctors and professionals
- Faith-based organizations

Recap

1. Asian Americans present unique features in expression of depression
2. Remember “sig e caps” in Dx of depression
3. Combined genetic, developmental, and environmental factors cause depression
4. Childhood abuse leaves lasting vulnerability to depression
5. Treatment of depression involves drug, psychotherapy, correction of environmental stressful factors, and brain stimulation
6. Suicide rate among Chinese American youth is rising
7. "IS PATH WARM" signals impeding suicidal intent
8. Prevention of depression and suicide should emphasize “IQ”, “EQ”, and “SQ.”

Thank you!
Overview of Palliative Care

Cynthia X. Pan, M.D., AGSF, FACP
Adjunct Associate Professor Department of Geriatrics and Adult Development,
Mount Sinai School of Medicine, New York
Chief of Geriatrics & Palliative Care Medicine, New York Hospital Queens, Flushing, NY
Chair, Ethnogeriatrics Committee, The American Geriatrics Society

Summary

When someone is seriously ill or at the end of life, many cultural conflicts may arise among Chinese patients, their families, and the Western Health Care System. The use of hospice is lower for Chinese and Asian patients in the US than for the rest of the population. Some of this may be cultural, but may also be related to language barriers, language terms, or access to information. Among Chinese physicians, truth telling is especially difficult when communicating to patients who have advanced cancer. However, recent studies suggest that ethnic palliative care disparities can be reduced. For example, some studies showed that acculturation and knowledge promoted advance care planning. Illness awareness, perceived barriers about advanced care planning, knowledge, access to medical care (esp palliative) influenced decisions about end of life (EOL) care and hospice, not one’s ethnicity. Also, patient & family education by health professionals led to increased awareness of disease and better EOL decision making.

Learning Objectives:
1. Review the definition of palliative care (PC)
2. Review Chinese terminology for palliative care terms
3. Compare & contrast PC from the traditional hospice model
4. Describe potential cultural barriers for palliative care
5. Describe the US biomedical ethics framework, and how it may differ from that in Asian/Chinese populations
6. Explain the basic tenets of palliative care and why palliative care is growing as a movement in the United States
Overview of Palliative Care

Cynthia X. Pan, M.D., AGSF, FACP
Adjunct Associate Professor Department of Geriatrics and Adult Development,
Mount Sinai School of Medicine, New York
Chief of Geriatrics & Palliative Care Medicine, New York Hospital Queens, Flushing, NY
Chair, Ethnogeriatrics Committee, The American Geriatrics Society

About the Speaker

Cynthia X. Pan, MD is Director of Palliative Care at NYHQ, as well as Key Geriatrics Faculty for the Geriatrics Fellowship. She is board-certified in Internal Medicine, Geriatrics, and Hospice and Palliative Medicine. Dr. Pan is Adjunct Associate Professor of Medicine and Geriatrics at The Mount Sinai School of Medicine, where she served as Director of Palliative Care Education for 10 years.

She served as Medical Director for Hospice Care Network – Queens Region from 2006-2010. She is currently the Chair of the Ethnogeriatrics Committee at The American Geriatrics Society. She is a certified trainer for EPEC (Education in Palliative and End of life Care). Dr. Pan received her BA in Biology from Harvard/Radcliffe and her MD degree from Stony Brook University School of Medicine. She completed her Primary Care Internal Medicine residency at the University of Rochester, followed by Geriatrics Fellowship training at Harvard Medical School’s Division on Aging. Dr. Pan’s teaching and research interests include cultural influences on decision-making among older adults, and medical and interdisciplinary training about communication skills in geriatrics and palliative care settings. She is fluent in English, Mandarin Chinese and Spanish.
Overview of Palliative Care

Cynthia X. Pan, MD, FACP, AGSF
Chief, Division of Geriatrics & Palliative Care Medicine
New York Hospital Queens
An affiliate of New York Cornell Presbyterian Health System
Associate Professor of Clinical Medicine
The Weill Cornell Medical College

Chinese American Medical Society
November 10, 2012

Learning Objectives

After attending this presentation, the learner will be able to:
1. Review the definition of palliative care (PC)
2. Compare & contrast PC from the traditional hospice model
3. Describe potential cultural barriers for palliative care
4. Describe the US biomedical ethics framework, and how it may differ from that in Asian/Chinese populations
5. Explain the basic tenets of palliative care and why palliative care is growing as a movement in the United States
6. Review Chinese terminology for palliative care terms

Definition of Palliative Care

1. Palliative care means specialized medical care for patients who live with a serious illness and their families.
2. It aims to optimize quality of life and reduce suffering.
3. Palliative care is provided by a team of experts including doctors, nurses, and other team members, who work together with a patient’s primary doctor, to provide an extra layer of support.
4. Palliative care is about information, relief, control and choice.

www.capc.org

Conceptual Shift

Life Prolonging Care

Palliative Care

Hospice

Benefit

Dx

Death

How Does Palliative Care Differ From Hospice?

1. Non-hospice palliative care is appropriate at any point in a serious illness. It is provided at the same time as life-prolonging treatment. No prognostic requirement, no need to choose between treatment approaches.
2. Hospice is a form of palliative care that provides care for those in the last week/few months of life. Patients must have a 2 MD-certified prognosis of <6 months + give up insurance coverage for curative/life prolonging treatment in order to be eligible.

Palliative Care in Practice

1. Expert control of pain and symptoms
2. Uses the crisis of the hospitalization to facilitate communication and decisions about goals of care with patient and family
3. Coordinates care and transitions across fragmented medical system
4. Provides practical, psychological, and spiritual support for family and other caregivers (+ clinicians)
Prevalence of Palliative Care Programs in U.S.

<table>
<thead>
<tr>
<th>Year</th>
<th>Programs (#)</th>
<th>Hospitals (#)</th>
<th>Program Prevalence (%)</th>
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</thead>
<tbody>
<tr>
<td>2000</td>
<td>658</td>
<td>2686</td>
<td>21.5%</td>
</tr>
<tr>
<td>2001</td>
<td>803</td>
<td>2546</td>
<td>30.4%</td>
</tr>
<tr>
<td>2002</td>
<td>946</td>
<td>2658</td>
<td>35.6%</td>
</tr>
<tr>
<td>2003</td>
<td>1052</td>
<td>2603</td>
<td>40.3%</td>
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<tr>
<td>2004</td>
<td>1150</td>
<td>2569</td>
<td>44.9%</td>
</tr>
<tr>
<td>2005</td>
<td>1265</td>
<td>2629</td>
<td>50.4%</td>
</tr>
<tr>
<td>2006</td>
<td>1357</td>
<td>2452</td>
<td>55.3%</td>
</tr>
<tr>
<td>2007</td>
<td>1373</td>
<td>2525</td>
<td>54.9%</td>
</tr>
<tr>
<td>2008</td>
<td>1446</td>
<td>2517</td>
<td>58.5%</td>
</tr>
</tbody>
</table>

Change in Palliative Care Programs 2000 to 2008: 125.6%

Why is hospital palliative care growing so rapidly in the United States?

Because of Quality

Quality is Defined as Care that is:
1. Beneficial
2. Patient centered
3. Efficient
4. Timely
5. Safe
6. Equitable

Patient Centered?

What do patients with serious illness and their families want?

- Patients
  - Pain and symptom control
  - Avoid inappropriate prolongation of dying
  - Achieve a sense of control
  - Relieve burdens on family
  - Strengthen relationships with loved ones

- Families
  - Loved one's wishes honored
  - Inclusion in decision processes
  - Practical help
  - Honest information
  - To be listened to
  - To be remembered and contacted after the death

Study of 475 family members 1-2 years after bereavement

And What They Get: Suffering in U.S. Hospitals

National Data on the Experience of Advanced Illness in 5 Tertiary Care Teaching Hospitals (SUPPORT study):

- 9000 patients with life-threatening illness, 50% died within 6 months of entry
- Half of patients had moderate-severe pain >50% of last 3 days of life.
- 38% of those who died spent >10 days in ICU, in coma, or on a ventilator.

Advanced Illness in the Hospital

- >80% of people who die in US have a long, progressive illness
- Everybody with serious illness spends at least some time in a hospital...
- 98% of Medicare decedents spend at least some time in a hospital in the year before death.
- 15-55% of decedents had at least one stay in an ICU in the 6 months before death.
- 80% patients say they want to avoid hospitalization and intensive care when they are dying

16th Conference

Palliative Care

Symptom Burden of Patients Hospitalized With Serious Illness at 5 U.S. Academic Medical Centers

% of 5176 patients reporting moderate to severe pain between days 8-12 of admission
- Colon Cancer: 60%
- Liver Failure: 60%
- Lung Cancer: 57%
- COPD: 44%
- CHF: 43%


Caregiving Needs Among Seriously Ill Persons

Interviews with 900 caregivers of seriously ill persons at 6 U.S. sites:
- Need more help: 87% of families
- Transportation: 62%
- Homemaking: 55%


Caregiving Increases Mortality

Nurses Health Study: prospective study of 54,412 nurses
- Increased risk of MI or cardiac death: RR 1.8 if caregiving >9 hrs/wk for ill spouse

Lee et al. Am J Prev Med 2003;24:113

Population based cohort study 400 in-home caregivers + 400 controls
- Increased risk of death: RR 1.6 among caregivers reporting emotional strain


The Demographic Imperative: Chronically Ill, Aging Population Is Growing

The number of people over age 85 will double to 10 million by the year 2030.

The 23% of Medicare patients with >4 chronic conditions account for 68% of all Medicare spending.

CBO High Cost Medicare Beneficiaries May 2005

"It is thornlike in appearance, but I need to order a battery of tests."
Why Is Palliative Care Necessary in the US?

- Suffering
- Overwhelmed family caregivers
- Poor communication
- Extreme overuse and misuse

Is Palliative Care Beneficial?

- Symptom Improvement for 3,707 Palliative Care Patients at Mount Sinai
  - Pain
    - Initial Evaluation
    - Final Evaluation
  - Nausea
  - Shortness of Breath
  - Anxiety

Mortality follow back survey palliative care vs. usual care

- N=524 family survivors
- Overall satisfaction markedly superior in palliative care group, p<.001
- Palliative care superior for:
  - emotional/spiritual support
  - information/communication
  - care at time of death
  - access to services in community
  - well-being/dignity
  - care + setting concordant with patient preference
  - pain
  - PTSD symptoms

Difficultò Conversations Improve Outcomes

<table>
<thead>
<tr>
<th>Table 2. Medical Care Received in the Last Week of Life by End-of-Life Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min (Max)</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Medication received</td>
</tr>
<tr>
<td>ICU admission</td>
</tr>
<tr>
<td>Ventilator use</td>
</tr>
<tr>
<td>Hemodialysis</td>
</tr>
<tr>
<td>Chemotherapy</td>
</tr>
<tr>
<td>Feeding tube</td>
</tr>
<tr>
<td>Undocumented neglect</td>
</tr>
</tbody>
</table>

Caregivers of patients who received life sustaining tx had higher risk of depression and worse ratings of their own QOL.
Hospital palliative care programs demonstrably and substantially decrease health care costs.

### Impact of Palliative Care on Costs

<table>
<thead>
<tr>
<th></th>
<th>Live Discharges</th>
<th>Hospital Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Usual Care</td>
<td>Palliative Care</td>
</tr>
<tr>
<td>Total Per Admission</td>
<td>$19,379</td>
<td>$16,737</td>
</tr>
<tr>
<td>Total Per Day</td>
<td>$1,450</td>
<td>$1,171</td>
</tr>
<tr>
<td>Laboratory</td>
<td>$1,227</td>
<td>$803</td>
</tr>
<tr>
<td>ICU</td>
<td>$7,096</td>
<td>$1,917</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>$2,190</td>
<td>$2,001</td>
</tr>
<tr>
<td>Died (in ICU)</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

### Savings began 48 hours after PC consultation

- **p<.001**
- **p<.01**
- **p<.05**

---

### How Palliative Care Reduces Length of Stay and Cost

- **Clarifies goals of care with patients and families using language that patients and families understand**
- **Helps families to select medical treatments and care settings that match their goals**
- **Assists with decisions to leave the hospital, or to withhold or withdraw death-prolonging treatments that don’t help to meet their goals**

---

### What Does Palliative Care Mean from The Patient Perspective?

For patients, palliative care is key to:

- Relieve symptom distress
- Navigate a complex and confusing medical system
- Understand the options and their pros and cons
- Choose care options that fit their goals
- Allow simultaneous palliation of suffering along with continued treatment (no requirement to give up curative care)
- Practical and emotional support for exhausted family caregivers

---

### The Clinician Perspective

Palliative care is a key tool to:

- **Save time** by helping to handle repeated, intensive patient-family communications, coordination of care across settings, comprehensive discharge planning
- **Bedside management of pain and distress of highly symptomatic and complex cases**, supports the treatment plan of the primary physician
- **Promote patient and family satisfaction with the clinician’s quality of care**

---

### The Hospital Perspective

Palliative care is a key tool to:

- **Effectively treat the outliers in the hospital—people with complex advanced illness**
- **Provide service excellence, patient-centered care**
- **Increase patient and family satisfaction**
- **Improve staff satisfaction and retention**
- **Meet Joint Commission quality standards**
- **Rationalize the use of hospital resources, avoid costs**
- **Increase bed/ICU capacity and throughput, reduce cost per day**

---

**Morrison, RS et al. Archives Intern Med 2008**

Savings began 48 hours after PC consultation
Useful Communication Techniques in Palliative Care

- Communicating Bad News
  - S P I K E S
- Discussing Goals of Care
  - G O O D
- Family Meetings

Potential goals of care

- Cure of disease
- Avoidance of premature death
- Maintenance or improvement in function
- Prolongation of life
- Relief of suffering
- Quality of life
- Staying in control
- A good death
- Support for families and loved ones

Adapted from EPEC, the AMA

Reframing what patients want

US Bioethical Model

The commonly accepted principles of health care ethics include:
- the principle of respect for autonomy,
- the principle of non-maleficence,
- the principle of beneficence, and
- the principle of justice

7-step protocol to negotiate goals of care

1. Create the right setting
2. Determine what the patient and family know
3. Explore what they are expecting or hoping for
4. Suggest realistic goals
5. Respond empathically
6. Make a plan and follow-through
7. Review and revise periodically, as appropriate

Adapted from EPEC, the AMA
The Case of Mrs. S.

Mrs. S. is an 88 year old Chinese woman who has history of HTN, CKD, presented with worsening dyspnea and edema- in ED found to have creatinine of 17.6, Bun 220

She was started on hemodialysis and intubated for respiratory failure due to fluid overload.

Medical Intensive Care Unit called a palliative care consult.

The Case of Mrs. S.

Mrs. S. had just returned from a trip to China where she visited many relatives.

She has a daughter who lives with her in NY

She has 2 other children who live in Shanghai

After 2 weeks in the ICU, Mrs. S. was not weanable from the ventilator.

A conversation took place about tracheostomy vs. elective extubation.

Summary

We learned about the following:

- Review the definition of palliative care (PC)
- Compare & contrast PC from the traditional hospice model
- Describe potential cultural barriers for palliative care
- Describe the US biomedical ethics framework, and how it may differ from that in Asian/Chinese populations
- Explain the basic tenets of palliative care and why palliative care is growing as a movement in the United States
- Review Chinese terminology for palliative care terms

Acknowledgements

- Diane Meier, MD
- Nathan Goldstein, MD
- Gabrielle Goldberg, MD

Thank you!!

- Cynthia X Pan, MD
- cxp9001@nyp.org
Practice Seminar 1: Improving Care for Diabetes Patients

Loli Huang, M.D., FACP
Endocrinologist, Queens Diabetes and Endocrinology

Summary

This session focuses on starting insulin therapy in patients with Type 2 Diabetes. The discussion will include how to identify clinical scenarios in which insulin treatment should be considered, pharmacokinetics and mechanisms of action of different types of insulins, and how to individualize insulin treatment to specific patients.
Practice Seminar 1: Improving Care for Diabetes Patients

Loli Huang, M.D., FACP
Endocrinologist, Queens Diabetes and Endocrinology

About The Speaker

Dr. Huang graduated from Mount Sinai School of Medicine in New York, N.Y. She did her residency in Internal Medicine at Mount Sinai Hospital in New York, NY, and her fellowship in Endocrinology and Metabolism at Montefiore Medical Center in the Bronx, NY. She is a fellow of the American College of Physicians. In addition, she is a member of the American Diabetes Association, Endocrine Society, American Association of Clinical Endocrinologists, and the Chinese American Medical Society. Dr. Huang is a practicing endocrinologist at Queens Diabetes and Endocrinology, P.C. In addition, she is highly involved in resident education at New York Hospital Queens.
Practice Seminar 2: Immigration Laws and their impact on HIV/Hepatitis Reporting Obligations

Richard La Salle Esq.
The Health Law Partners, P.C.

Summary

I will be discussing the need for a medical exam that accompanies most adjustment of status immigration cases (including the definition of "communicable diseases" and accepted treatments, HIV and TB); the importance of detail and accuracy in preparing the form; what the forms look like (sample forms will be distributed); and, how a physician can apply to become qualified to administer the examinations. (If they are not approved by the USCIS, the exam cannot be admitted into evidence).

Moreover, I will discuss the need of immigrants who have physical and mental disabilities to become U.S. Citizens. They cannot take any naturalization exams, yet need a qualified physician to complete a exemption form (samples will also be distributed). How the form is completed directly affects the ability of a lawful permanent resident to become a citizen.

I will also discuss how physicians, perhaps without realizing it, play a role in giving the minority vote a stronger and more respected position in the world of politics.
Practice Seminar 2: Immigration Laws and their impact on HIV/Hepatitis Reporting Obligations

Richard La Salle Esq.
The Health Law Partners, P.C.

About the Speaker

RICHARD LA SALLE became of counsel to The Health Law Partners in 2012. Over the past two decades, he has established himself as an internationally recognized Immigration Attorney. His clients hail from: Western and Eastern Europe (with an emphasis on Eastern Europe); the three major regions of Asia (with an emphasis on India, Pakistan, Bangladesh, China and Japan); the Middle East (with an emphasis on Lebanon, Israel, and Saudi Arabia); Northern Africa (primarily Morocco and Egypt) and every country in Central and South America.

As a result of his varied clientele, his office staff speaks a variety of languages including Spanish, Japanese, Arabic, Hebrew, Russian, Bulgarian, Urdu and Standard Hindi. Translators are brought in for other languages.

He represents health care systems and established companies in the United States and abroad to fill their domestic needs for professionals and skilled workers that range from: physicians, nurses and medical statisticians, to internationally recognized actors, models, singers, artists, designers and architects, to skilled workers needed for challenging positions within growing companies. The most common legal vehicles used to bring in these prospective employees are the following visas: H1B, O-1, EB-1, EB-2, L-1 and the non-immigrant P-1.

Since many of his clients are married and/or have children, he also handles virtually every type of family-based petition as the need arises. Moreover, if any of his clients have the misfortune of being placed into removal proceedings because of their conduct in the United States, he has over twenty (20) years of experience representing respondents before the Executive Office of Immigration Review.
Practice Seminar 2: Immigration Laws and their impact on HIV/Hepatitis Reporting Obligations

Richard La Salle Esq.
The Health Law Partners, P.C.

Background

Under the immigration laws of the United States, a foreign national who applies for an immigrant visa abroad, or who seeks to adjust status to a permanent resident while in the United States, is required to receive vaccinations to prevent the following diseases:

- Mumps
- Measles
- Rubella
- Polio
- Tetanus and Diphtheria Toxoids
- Pertussis
- Haemophilus influenzae type B
- Hepatitis B
- Any other vaccine-preventable diseases recommended by the Advisory Committee for Immunization Practices

The Advisory Committee for Immunization Practices (ACIP) is an advisory committee to the Department of Health and Human Services (HHS)/Centers for Disease Control and Prevention (CDC) that recommends immunizations for the general U.S. population. Starting Dec.14, 2009, when the ACIP recommends new vaccines for the general U.S. population, CDC will assess whether these vaccines should be required for immigration purposes on a regular and on an as-needed basis according to specific criteria set by CDC.
Practice Seminar 3: Utilization of Mental Health Resources

Yen L. Chong, M.D.
Attending Psychiatrist, Department of Neuroscience
New York Methodist Hospital, Brooklyn, NY

Summary

Asian Americans are the fastest growing minority in the United States and they are a culturally diverse group. Amongst them, the Chinese American community comprises the largest ethnic group of Asian Americans, comprising 25.9% of the Asian American population as of 2010. Many studies have shown that Asian Americans have low rates of utilization of mental health care. It is therefore important to understand the influence of cultural beliefs, specific mental health issues and factors that are specific to this population and how providers can overcome these barriers by planning appropriate mental health care.
Practice Seminar 3: Utilization of Mental Health Resources

Yen L. Chong, M.D.
Attending Psychiatrist, Department of Neuroscience
New York Methodist Hospital, Brooklyn, NY

About the Speaker

Dr. Yen Ling Chong is a board certified psychiatrist who specializes in treatment of adult general psychiatry. She is currently the attending psychiatrist at New York Methodist Hospital, New York. She has a special interest in cross cultural psychiatry, and treatment of Asian American patients.

Dr. Chong grew up in Malaysia and studied in Singapore before returning to Malaysia to complete a pre-medical degree at the International Medical University. She received her medical degree from the University of Calgary, Canada. She completed her psychiatry residency at St. Vincent's Hospital- New York Medical College campus in Manhattan where she also served as the chief resident. During her residency, she was awarded the International Medical Graduate Fellowship by the American Association of Directors of Psychiatric Residency Training (AADPRT) and her mentor was Dr. Francis Lu. She spearheaded the presence of Psychiatry in Primary Care Setting in Chinatown while working at St. Vincent's Hospital, NY. She is currently the Vice President of the New York Coalition for the Asian American Mental Health.

Her experience growing up in a multicultural society proves as an advantage in her clinical and private practice where she treats mostly the diverse under-served Asian American communities in New York.
Practice Seminar 4: Advance Directives

Cynthia X. Pan, M.D., AGSF, FACP
Adjunct Associate Professor Department of Geriatrics and Adult Development,
Mount Sinai School of Medicine, New York
Chief of Geriatrics & Palliative Care Medicine, New York Hospital Queens
Chair, Ethnogeriatrics Committee, The American Geriatrics Society

Summary

Advance directives are an important part of health care discussions and planning. Both patients and physicians agree that advance directives should be addressed, but both wait for the other party to bring it up. In the Chinese population, there may be cultural reasons or barriers to discussing advance directives. In this workshop, we will use case based discussions and role play to practice these critical communication skills.

Learning Objectives

- Define advance care planning and explain its importance
- Review some data about Asian/Chinese populations and advance directives
- Describe the steps of advance care planning
- Describe the role of patient, proxy, physician, others
- Identify pitfalls and limitations in advance care planning
Advance Directives

Cynthia X. Pan, MD, FACP, AGSF
Chief, Division of Geriatrics & Palliative Care Medicine
New York Hospital Queens
An affiliate of New York Cornell Presbyterian Health System
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The Weill Cornell Medical College

Chinese American Medical Society
November 11, 2012

Adapted from The Education of Physicians in Palliative and End-of-life Care Project with Northwestern Univ’s Feinberg School of Medicine The AMA and the Robert Wood Johnson Foundation

Objectives . . .

- Define advance care planning and explain its importance
- Review some data about Asian/Chinese populations and advance directives
- Describe the steps of advance care planning
- Describe the role of patient, proxy, physician, others

What is advance care planning?

- Process of planning for future medical care
- Values and goals are explored, documented
- Determine proxy decision maker
- Professional, legal responsibility

...Objectives

- Provide opportunity for role play practice
- Identify pitfalls and limitations in advance care planning
Benefits of advance care planning

- Trust building
- Uncertainty reduced
- Helps to avoid confusion and conflict
- Permits peace of mind

Communicating Goals of Care

- Every one has a personal sense of
  - who we are
  - what we like to do
  - control we like to have
  - goals for our lives
  - things we hope for, legacy
- Hope, goals, expectations change with illness
- Physician’s role to clarify goals, treatment plan

Potential goals of care

- Cure of disease
- Avoidance of premature death
- Maintenance or improvement in function
- Prolongation of life
- Relief of suffering
- Quality of life
- Staying in control
- A good death
- Support for families and loved ones

The Case of Mr. Lé

- Mr. L. is an 78 year old Chinese man who has history of HTN, HLD, BPH, who is developing memory impairment affecting his function.
- His wife and daughter are very concerned and brought him to a geriatrician for evaluation.
- Mr. L was diagnosed of Alzheimer’s disease.

The Case of Mr. L.

- When the daughter suggested a discussion about advance directives, Mr. L. angrily replied, “Are you trying to curse me? The inheritance will be yours anyway.”
- What are potential ways to answer Mr. L. and address his emotional reaction?

5 steps for successful advance care planning

1. Introduce the topic
2. Engage in structured discussions
3. Document patient preferences
4. Review, update
5. Apply directives when need arises
Step 1: Introduce the topic
- Be straightforward and make it routine
- Determine patient familiarity
- Explain the process
- Determine comfort level
- Determine proxy

Step 2: Engage in structured discussions
- Proxy decision maker(s) present
- Describe scenarios, options for care
- Elicit patient’s values, goals
- Use a worksheet
- Check for inconsistencies

Role of the proxy
- Entrusted to speak for the patient
  - Make decisions as if s/he were the patient
- Involved in the discussions
- Must be willing, able to take the proxy role

Patient and proxy education
- Define key medical terms
- Explain benefits, burdens of treatments
  - Life support may only be short-term
  - Any intervention can be refused
  - Recovery cannot always be predicted

Elicit the patient’s values and goals
- Ask about past experiences
  - Mrs. X, I know your medical conditions, but I would like to find out more about you as a person.
- Describe possible situations
- Write a letter

Use a validated advisory document
- A number are available
- Easy to use
- Reduces chance for omissions
- Patients, proxy, family can take home
Examples of Advance Directives

Step 3: Document patient preferences
- Review advance directive
- Sign the documentation
- Enter into the medical record
- Recommend statutory documents
- Ensure portability

Step 4: Review, update
- Follow up periodically
- Note major life events
- Discuss, document changes

Step 5: Apply directives
- Determine applicability
- Read and interpret the advance directive
- Consult with the proxy
- Ethics committee for disagreements
- Carry out the treatment plan

Common pitfalls
- Failure to plan
- Proxy absent for discussions
- Unclear patient preferences
- Focus too narrow
- Communicative patients are ignored
- Advance directives are not read

Choice of caregivers
- Be family first, caregivers only if comfortable
  - everyone comfortable in the role
  - seek permission
  - change roles if stressed

Think back to Mrs. S’ scenario
Hierarch of Decision Makers in Patients Who Lack Capacity

- Legal Guardian
- Health Care Proxy
- Surrogates
  - Spouse or domestic partner
  - Adult son or daughter (>18 yo)
  - Parent
  - Adult brother or sister
  - Close relative or close friend
- Importance of family meetings, consensus making

Role Play

- A = Patient
- B = Physician
- Task: Review important goals and values of patient, then appoint HC Proxy
- Debrief

Summary

- Defined advance care planning and explained its importance
- Reviewed some data about Asian/Chinese populations and advance directives
- Described the steps of advance care planning
- Described the role of patient, proxy, physician, others
- Provided opportunity for practice

Thank you!!

- Cynthia X Pan, MD
- cxp9001@nyp.org
Practice Seminar 5: Pain Management Quality Improvement

Lara Dhingra, Ph.D.

Assistant Professor, Department of Neurology and Psychiatry and Behavioral Sciences
Albert Einstein College of Medicine, Bronx, NY
Co-Chief, Research, Department of Pain Medicine & Palliative Care,
Beth Israel Medical Center, New York, NY

Summary

Pain management is an important priority for health care providers (JCAHO 2012; IOM 2012), and recent evidence suggests that disparities in pain often exist for racial/ethnic groups in the United States (Green et al., 2003, Anderson et al., 2009), including Chinese American patients (Dhingra et al., 2011). The need for practitioners to compare and monitor their clinical practice against national standards, and to improve this practice when warranted, is being mandated by regulatory agencies (e.g., American Board of Internal Medicine, 2012, JCAHO, 2003), the Federation of State Medical Boards (2004) and public expectations. This mandate occurs as recognition grows that poorly controlled pain can lead to adverse health consequences, including sleep disorder and fatigue, psychological distress, disability, and a high rate of health care utilization (Portenoy et al., 2004). This research seminar will assist practitioners in designing and implementing a quality improvement (QI) project for pain control in their practice setting. Newly available experience from an ongoing American Cancer Society-funded study of quality improvement strategies in Chinese American cancer pain patients (Lara Dhingra, Principal Investigator) will provide the framework for this seminar. Using rapid-cycle QI methods, practitioners will apply elements incorporating best practice strategies for pain assessment and management. Examples and exercises will address system-wide approaches for improving pain control in various practice settings. Practitioners will identify commonly-encountered barriers to the assessment of pain in Chinese American patients, and strategies to address these barriers. This seminar will enable practitioners to adopt QI methods for the management of pain in Chinese American patients.
Practice Seminar 5: Pain Management Quality Improvement

Lara Dhingra, Ph.D.

Assistant Professor, Department of Neurology and Psychiatry and Behavioral Sciences
Albert Einstein College of Medicine, Bronx, NY
Co-Chief, Research, Department of Pain Medicine & Palliative Care,
Beth Israel Medical Center, New York, NY

About The Speaker

Lara Dhingra, PhD, is Co-Chief of the Research Division in the Department of Pain Medicine and Palliative Care, Beth Israel Medical Center, and is Assistant Professor of Neurology and Psychiatry and Behavioral Sciences at Albert Einstein College of Medicine. She completed her Ph.D. in Clinical Psychology at the Illinois Institute of Technology with a specialty in behavioral medicine, followed by a Clinical Psychology Residency at the University of Mississippi Medical Center / Veterans Affairs Medical Center Consortium. She completed her NIH-sponsored research fellowship in psycho-oncology in the Department of Psychiatry and Behavioral Sciences at Memorial Sloan-Kettering Cancer Center. Dr. Dhingra has advanced training in pain management and pain research. Her interests include health services research, racial and ethnic disparities in pain and symptom management, and treatment of tobacco dependency. She is currently collaborating with Dr. Marilyn Bookbinder, Dr. Victor Chang, Dr. William Cheung, Ms. Selina Chan, Dr. Kin Lam, Dr. Zujun Li, Dr. Russell Portenoy, Dr. Theresa Shao, Dr. Wan Lam, and others on a five year study sponsored by the American Cancer Society to improve the quality of pain management for underserved Chinese immigrants diagnosed with cancer.
Pain Management and Quality Improvement

Lara Dhingra, PhD
Co-Chief of Research
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Beth Israel Medical Center, New York, NY
Assistant Professor of Neurology and Psychiatry and Behavioral Sciences
Albert Einstein College of Medicine, Bronx, NY

Disclosure Statement
Dr. Lara Dhingra has disclosed no relevant financial relationships.

Objectives
1. Define rapid-cycle quality improvement (QI)
2. Describe lessons learned from an ongoing rapid-cycle QI intervention for pain control in Chinese American cancer patients
3. Identify commonly-encountered barriers to the assessment of pain in Chinese American patients
4. Discuss how practitioners can apply rapid-cycle QI methods for improvements to their clinical practice

Quality Improvement
A quality management model whereby healthcare is seen as a series of processes and a system leading to an outcome. QI strives to make changes in the structural and process components of care to achieve better outcomes.

Rapid-Cycle QI Model
ACT
PLAN
STUDY
DO
- What are we trying to accomplish?
- What changes will bring about an improvement?
- How will we know that a change is an improvement?

Why Spend Time on This?
Improving the quality of pain management through measurement and action.

Quality Improvement for Symptom Control in Underserved Chinese American Patients

Lara Dhingra, PhD
American Cancer Society Research Scholar Grant
RSGT-09-201-01

Aim

Test the effectiveness of a rapid-cycle QI intervention to enhance the processes and outcomes of pain management for poor and underserved ethnic Chinese cancer patients.

QI Intervention

Best practices for pain and symptom care and related process measures:

- **Pain Screening**
  - % of patients who receive pain screening tool

- **Early Identification and Follow-up for Pain Treatment**
  - % of patients with poorly controlled symptoms contacted for treatment
  - % of patients offered change of therapy

- **Provider Education**
  - % of physicians participating in webinars
  - % of nursing staff utilizing educational resources

- **Referral for Specialist Care**
  - % of patients who continue to have moderate to severe uncontrolled symptoms referred for specialist level care

Target adherence rate of ≥ 70% for each above process

Rapid-Cycle QI

Pain Screening Implementation

1. Develop pain screening tool and procedure for practice staff to implement tool.
2. Practice staff implements tool for every patient.
3. Summarize adherence data via chart reviews; Target is 70% of patients screened.
4. Present data and provide feedback to practice staff; identify problems; Revise procedures as needed.

QI Process Data

Proportion of Patients Screened for Pain

- **Practice 1**
  - Proportion of patients screened:
    - 5/11
    - 10/11
    - 12/12
  - Months: 7/11, 11/11

- **Practice 2**
  - Proportion of patients screened:
    - 0/11
  - Months: 5/11
  - 7/12
Barriers to Pain Assessment
Chinese American Patients

- Concerns about patients under-reporting pain
- Patients are unfamiliar with pain scales
- Patients often reluctant to share information about their emotions and moods
- First-generation patients often fear that information will be released to government officials
- Elderly patients may not be told they have cancer
- Many prefer complementary and alternative therapies

Applying Rapid-cycle QI to Clinical Practice

Discussion
Review of Tools and Examples
Practice Seminar 6: Making the Treatment of Tobacco Use & Dependence a Routine Part of Care

Donna Shelley, M.D., M.P.H.

Associate Professor and Associate Director of Research
Division of General Internal Medicine, NYU School of Medicine

Summary

This lecture will provide practical information about how to integrate evidence based smoking cessation interventions into routine primary care practice. The talk will cover information about medications, how to prescribe pharmacotherapy and how to leverage local and national referral resources to make it easy for providers to ensure that patients receive evidence-based counseling as well as smoking cessation medications. Case studies will be used to demonstrate the application of the concepts covered.
Practice Seminar 6: Making the Treatment of Tobacco Use & Dependence a Routine Part of Care

Donna Shelley, M.D., M.P.H.

Associate Professor and Associate Director of Research
Division of General Internal Medicine, NYU School of Medicine

Summary

Dr. Shelley is an Associate Professor of Medicine and Director of Research Development in the Department of Population Health at the New York University School of Medicine (NYUSOM). Over the past decade she has been the Principal Investigator (PI) or Co Investigator on grants funded by CDC, NIH, AHRQ and the New York State Department of Health (NYSDOH). Her research, funded by National Institutes of Health, Agency for Healthcare Research and Quality and the New York State Department of Health is focused in two areas: studying the effectiveness and implementation of interventions to improve the delivery of evidence-based smoking cessation treatment and developing efficacious cessation treatments for underserved populations. Before starting her research career, she was the Director of the Tobacco Control Program at the New York City DOH. Dr. Shelley received her medical degree from the Mount Sinai School of Medicine and her Masters in Public Health from Columbia University’s Mailman School of Public Health.
Making the treatment of tobacco use and dependence a routine part of care

Donna Shelley MD MPH
Department of Population Health

Smoking prevalence by gender, US 2010

Smoking prevalence in NYC 2002-2010

Risks of light smoking

Cardiovascular disease                  Level of Smoking    Risk for Light Smokers vs Nonsmokers    Study Design
Ischemic heart disease
Aortic aneurysm
Cardiovascular mortality

Occasional smoking

RR 2.74 (2.07–3.61) in men; RR 2.94 (1.75–4.95) in women
Prospective cohort
Prospective cohort
Prospective cohort

10% 20% 30%
No Medication 5% 10% 15%

Brief therapy is defined as 2-3 minutes,
**Intensive therapy is defined as great than 10 minutes

The most effective treatment for smoking cessation is a combination of pharmacotherapy and counseling
Nicotine Pharmacodynamics: Withdrawal

- Irritability/frustration/anger
- Anxiety
- Difficulty concentrating
- Restlessness/impatience
- Depressed mood/depression
- Insomnia
- Impaired performance
- Increased appetite/weight gain
- Cravings

Most symptoms manifest within the first 1–2 days, peak within the first week, and subside within 2–4 weeks.


What works:
www.surgeongeneral.gov/tobacco

Treating Tobacco Use and Dependence

Brief tobacco use treatment strategy

STEP 1: ASK (30 seconds)

- **ASK** about tobacco use
  - Do you, or does anyone in your household, ever smoke or use any type of tobacco?
  - We like to ask our patients about tobacco use, because it contributes to many medical conditions.

NOTE: Screening for tobacco use is a meaningful use measure

STEP 2: ADVISE 1 minute

- **ADVISE** tobacco users to quit (clear, strong, personalized)
  - It’s important that you quit as soon as possible, and I can help you.
  - Occasional or light smoking is still harmful.
  - I realize that quitting is difficult. It is the most important thing you can do to protect your health now and in the future. I have training to help my patients quit, and when you are ready, I will work with you to design a specialized treatment plan.

STEP 3: Assist (Refer) 2.5 minutes

- **REFER** tobacco users to other resources

  Referral options:
  - A local group program
  - Outside NY toll-free quit line:
  - IN NEW YORK
  - 1-866-NYQUITS

Step 4: Assist-Prescribe FDA-approved medications

**TC**
- Nicotine polacrilex gum
- Nicotine lo enge
- Nicotine transdermal patch

- Nasal spray
- Inhaler
- Buproproin yban
- arenicline Chanti
16th Conference  

Making the Treatment of Tobacco Use & Dependence a Routine Part of Care

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**PLASMA NICOTINE CONCENTRATIONS for NICOTINE-CONTAINING PRODUCTS**

![Graph showing plasma nicotine concentrations for different nicotine-containing products](image)

---

**VARENICLINE: DOSING**

Patients should begin therapy 1 week PRIOR to their quit date. The dose is gradually increased to minimize treatment-related nausea and insomnia.

<table>
<thead>
<tr>
<th>Treatment Day</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial dose titration</td>
<td></td>
</tr>
<tr>
<td>Day 1 to day 3</td>
<td>0.5 mg qd</td>
</tr>
<tr>
<td>Day 4 to day 7</td>
<td>0.5 mg bid</td>
</tr>
<tr>
<td>Day 8 to end of treatment</td>
<td>1 mg bid</td>
</tr>
</tbody>
</table>

*Up to 12 weeks

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**Varenicline and Bupropion: Warnings and precautions**

- Neuropsychiatric Symptoms and Suicidality
  - Changes in mood (depression and mania)
  - Psychosis/hallucinations/paranoia/delusions
  - Homicidal ideation/hostility
  - Agitation/anxiety/panic
  - Suicidal ideation or attempts
  - Completed suicide

Patients should stop varenicline and contact a health care provider immediately if agitation, hostility, depressed mood or changes in thinking or behavior (including suicidal ideation) are observed.

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**Tailoring pharmacotherapy**

**Long acting**
- Pick 1 or 2 from here
  - Nicotine patch
  - Bupropion
  - Varenicline

**Short acting**
- Plus 1 or 2 from here
  - Nicotine gum
  - Nicotine inhaler
  - Nicotine lozenge
  - Nicotine nasal spray

---

**Case Studies**

1) 55 year old overweight male, with h/o hypertension, hyperlipidemia. Smoked 1 ppd for 35 years. No significant ETOH history. Past quit attempt one year ago using Varenicline. Complained of depressed mood and stopped after 2 weeks. Not interested in using NRT.

---
Case Studies

2) 71 year old female w/ history of breast cancer and hypertension. Smoking 15 cigs per day. Interested in using bupropion but heavy drinker. She had concerns about Varenicline. Concerned about weight gain.

• Start 21 mg patch and 2 mg lozenge (minis). Use 2 mg lozenge every 2-3 hours first week and pull back or increase depending on level of withdrawal symptoms.

3) 50 year old female with no medical problems. Smoking 10-20 cigarettes per day for 30 years. Complains of feeling depressed when she has quit in the past. Has used NRT in past.

• Started Bupropion and patch 21 mg.

Summary

• Screen all patients for tobacco use at least annually.
• Treat tobacco dependence for the serious chronic relapsing medical problem it is.
• To maximize success, interventions should include motivational counseling and one or more medications.
• There is a dose response to counseling.
• Longer treatment is better. This is not strep throat or a UTI.
ABSTRACTS

1. SUCCESSFUL IMPLEMENTATION OF A STANDARDIZED DEVELOPMENTAL SCREEN IN AN URBAN COMMUNITY HEALTH CENTER FOR LOW-INCOME, ETHNIC IMMIGRANT POPULATION
   Loretta Au, MD; Daisy Ta-Chuan Tsao; Susan Yee, MHA; Shao-Chee Sim, PhD; Hyoseong Nuna Kim, MD; Holly Lee, FNP; Howard Lew, MPH; and Celina Chan

2. REVERSE-MIGRATION SEPARATION: HEALTH OUTCOMES IN CHINESE SATELLITE PEDIATRIC POPULATION (Oral Presentation)
   L. Chiu, MPH; T Palermo, PhD

3. RESPIRATORY FACTORS ASSOCIATED WITH ASTHMA AMONG ADULT CHINESE IMMIGRANTS IN BOSTON
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4. BARRIERS TO QUALITY IMPROVEMENT FOR PAIN CONTROL IN UNDERSERVED CHINESE CANCER PATIENTS (Oral Presentation)
   L. Dhingra, PhD, K Lam, MD, W Cheung, MD, T Shao, MD, Z Li, MD, S Van de Maele, RN, MSN, APN-BC, OCN, V Chang, MD, W Lam, MD, S Chan, RN, J Chen, MBS, V Li, MA, R Wong, LSW, S Cheng, BA, M Bookbinder, RN, PhD, and R Portenoy, MD

5. UNITED STATES ASTHMA HOSPITALIZATION RATES IN THE 21ST CENTURY SHOW A PEAK FEMALE PREDOMINANCE IN THE 5TH-6TH DECADES OF LIFE
   W Liao, R Y Lin, BA, MS, MD, Rong Ji, MD, PhD

6. CHINESE WOMEN HAVE GREATER CORTICAL BONE DENSITY AT THE HIP COMPARED TO WHITE WOMEN (Oral Presentation)
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7. TELEHEALTH OCULAR SCREENING IN DIABETES MELLITUS TYPE 1 SUBJECTS
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8. RECEPTOR (ER, PR and HER2) STATUS IN WOMEN WITH EARLY ONSET BREAST CANCER FROM DIFFERENT RACES.
   M Singh, MD, Y Ding, MD, PhD, R Xu, MD, PhD, D Zhang, MD, PhD, V Chang, MD, S Lee, MD, M Chen, MD, P August, MD, P Lee MD, PhD

9. ADVANCE DIRECTIVES COMPLETION AMONG ASIAN AMERICAN CHURCH COMMUNITIES
   Angela Sun, PhD, MPH; Quynh Bui, MD, MPH; Janice Y. Tsoh, PhD; Tung T. Nguyen, MD; Stephen McPhee, MD; Ginny Gildengorin, PhD; Ky Lai, MD, MPH; Joyce Cheng, MS; Joanne Chan, BA
ABSTRACTS

Continued

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11. DEVELOPING A FAMILY RESOURCE CENTER IN A COMMUNITY HEALTH CENTER / PRIMARY CARE SETTING TO PROMOTE SCHOOL READINESS AND HEALTHY CHILD DEVELOPMENT FOR ASIAN AMERICAN POPULATIONS
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14. DISRUPTION OF THE NORMAL FEEDING SCHEDULE ALTERS ENERGY HOMEOSTASIS, AND GLUCOSE AND LIPID METABOLISM
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Wesley Yu, BS; Sarah Nordstrom, PhD; Ethan Weiss, MD
ABSTRACT #1

SUCCESSFUL IMPLEMENTATION OF A STANDARDIZED DEVELOPMENTAL SCREEN IN AN URBAN COMMUNITY HEALTH CENTER FOR LOW-INCOME, ETHNIC IMMIGRANT POPULATIONS

Loretta Au, MD; Daisy Ta-Chuan Tsao; Susan Yee, MHA; Shao-Chee Sim, PhD; Hyoseong Nuna Kim, MD; Holly Lee, FNP; Howard Lew, MPH; and Celina Chan
Charles B. Wang Community Health Center 125 Walker St. 2nd Floor, New York, NY 10013

BACKGROUND: This study examines the utility of the Parents’ Evaluation of Developmental Status (PEDS) to detect developmental delays in a primary care setting that serves low-income, immigrant populations. PEDS is a 10-item validated questionnaire that identifies potential for developmental delay in children 0 to 8 years old through parental reports of developmental concerns. The screen has been translated and validated in diverse populations within the US but the wide use and interpretation of results for Asian populations has not been demonstrated.

METHODS: A convenience sample of parents and/or primary caregivers of children aged 1 to 4 years (inclusive) receiving well child care from January 1st to December 31st, 2011 at Charles B. Wang Community Health Center (CBWCHC) in New York City completed the PEDS screen in their preferred language. The Patient Health Questionnaire 2 (PHQ-2), a 2-item version of the PHQ depression module, was also administered.

RESULTS: A total of 1363 patients were screened at least once, which accounted for 48% of the pediatric patient population between 1 and 4 years old. The combined rate of high and medium risk (36%) for developmental delay was higher than that of previous studies (34%). The highest rates of parental concerns were in areas of speech (22%) and behavioral development (16%). Significant sex differences were found in rates of reported behavioral and expressive language concerns. Higher risk was related to higher parental stress, lower parental support, and higher incidence of and concern about parent-child separation.

CONCLUSIONS: The PEDS screen is an effective standardized developmental screen that detects expected rates of risk for developmental delay in Asian American populations. Clinical and cultural implications of results are discussed.

CONTENT CATEGORIES: Epidemiology

KEYWORDS: Pediatrics, Child Development, Screens/Screening, Developmental Delay, Parenting
ABSTRACT #2

REVERSE-MIGRATION SEPARATION: HEALTH OUTCOMES IN CHINESE SATELLITE PEDIATRIC POPULATION

L. Chiu, MPH; T Palermo, PhD

1 College of Medicine, Albany Medical College, Albany, NY 12208 2 Dept of Preventive Medicine and Graduate Program in Public Health, Stony Brook University Medical Center, Stony Brook, NY 11794

BACKGROUND: Recent attention has been directed towards the widespread trend of Chinese immigrant families sending their U.S.-born infants to mainland China, to be cared for by other caregivers. Little is known about the health effects that this practice may have on children.

METHODS: De-identified retrospective data were analyzed from Charles B. Wang Community Health Center (CBWCHC)'s Family Psychosocial Screening Survey database and Electronic Medical Record system from November 2010 to November 2011. Our final sample of Chinese-American pediatric patients included 554 subjects with non-missing values for variables of interest, including 154 case patients who had experienced reverse-migration separation, and 400 control patients who had not. Health outcomes included tuberculosis exposure, lead exposure, developmental problems, physical underdevelopment, mental health/behavioral issues, and overweight status. Bivariate analyses examined the socio-demographic and health outcomes by reverse-migration separation status. Multivariate logistic regression models assessed reverse-migration status and adjusted logit models evaluated length of separation as a predictor for health outcomes.

RESULTS: Subjects significantly differed by current age, parents’ education level, birth order, number of siblings and number of siblings also affected by reverse-migration. In our adjusted analyses, children who experienced reverse-migration separation were more likely to have diagnoses of tuberculosis exposure [OR: 16.861 (95% CI: 3.591, 79.176)] and lead exposure [OR: 7.662 (95% CI: 2.019, 29.078)]. This prolonged separation event was not significant in predicting other health outcomes. Additionally, among reverse-migration patients, length of prolonged separation was significant in predicting lead exposure diagnosis [OR: 1.074 (95% CI: 1.010, 1.142)].

CONCLUSIONS: The reverse-migration practice poses significantly increased health risks for children, notably in lead and tuberculosis exposure. A larger confirmatory study is needed to refine estimates of “satellite” children’s risks for adverse health outcomes.

CONTENT CATEGORIES: Epidemiology, Patient care

KEYWORDS: Community Health, Health Disparities, Child Health
RESPIRATORY FACTORS ASSOCIATED WITH ASTHMA AMONG ADULT CHINESE IMMIGRANTS IN BOSTON

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BACKGROUND: Little is known about why first generation immigrants tend to have lower asthma prevalence. The objective was to examine factors putatively associated with asthma in adult Chinese immigrants.

METHODS: Patient questionnaire data on diagnosed asthma, environmental exposures, and personal factors from the Community Assessment of Freeway Exposure and Health Study (CAFEH), a cross-sectional community based participatory study, were used. Inclusion criteria were: first generation Chinese immigrant or white native born American, >40 years of age, and residence in one of three near highway areas.

RESULTS: Asthma prevalence among adult Chinese immigrants (4.2%) was significantly less than for U.S. born white adults (17.8%; OR=0.205, 95% CI=0.095-0.446). Statistically significant associations with asthma were found in combined Chinese and white sample for: native vs. foreign born (OR=0.2; 95% CI= 0.09-0.44), education level ($\chi^2=462.0, p<0.0005$), co-morbidities (OR= 2.5; 95% CI=1.4-4.7), prior smoking ($\chi^2= 23.4, p<0.0005$), current smoking ($\chi^2=393.0, p<0.0005$), and log mean inflammation level biomarker TNF ($t=-2.240, p=0.030$). Statistically significant differences were found between Chinese and white participants for: income ($\chi^2=18.0, p<0.0005$), education ($\chi^2=468.7, p<0.0005$), former smoking ($\chi^2=29.4, p<0.0005$), current smokers ($\chi^2=396.2, p<0.0005$), second hand smoke (SHS) exposure ($\chi^2=11.8, p=0.001$), and log mean inflammation levels measured by TNF-RII ($t= 5.006, p<0.0005$) and trending for CRP ($t=1.809, p=0.073$).

CONCLUSIONS: Chinese immigrants had lower asthma prevalence than whites in our analysis despite the low SES. This may be partially explained by lower current smoking prevalence, reduced SHS exposure, and possible genetic or environmental differences leading to less inflammation. Status as first generation immigrants may be a protective, although no data about these individuals’ early life experiences is available. More research in this population might add to our limited understanding of why some people develop asthma.

CONTENT CATEGORIES: Epidemiology

KEYWORDS: Asthma, Chinese-Immigrants, Foreign-Born, Environment, Epidemiology
ABSTRACT #4

BARRIERS TO QUALITY IMPROVEMENT FOR PAIN CONTROL IN UNDERSERVED CHINESE CANCER PATIENTS

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BACKGROUND: Chinese Americans have high cancer rates and often present with advanced disease and poorly controlled pain. Although quality improvement (QI) methodologies, such as rapid-cycle QI, may improve clinical practice and patient outcomes, few QI programs for pain management exist for this population. This study aims to identify system-related barriers to pain screening that are associated with the implementation of a rapid-cycle QI intervention for pain management among ethnic Chinese cancer patients.

METHODS: In this ongoing community study, we are developing and testing a rapid-cycle QI model to improve pain among Chinese American cancer patients. The systems-based intervention incorporates repeated “plan-do-study-assess” QI cycles, including: pain screening, follow-up and early treatment for pain, referral, and provider education. Ethnic Chinese patients and clinicians from four oncology practices are the intervention targets. We gathered information on barriers and facilitators to the implementation of one QI intervention component, pain screening, among office staff using qualitative methods.

RESULTS: Initial data suggests that barriers to QI implementation include: lack of time among office staff to conduct pain screening, inconsistent screening by office staff, priority given to other medical issues versus pain, beliefs that patients will spontaneously report pain, and beliefs that pain is visible. Facilitators to pain screening include: the use of Chinese pain screening tools, continuous feedback and education to staff about pain screening as a best practice and data on uptake.

CONCLUSIONS: Multiple system-related challenges to QI implementation are being addressed. Findings will show the importance of community-based QI programs to improve pain control for underserved Chinese Americans and reduce system-based barriers to QI implementation and uptake for this population. Supported by: American Cancer Society 117416-RSGT-09-201-01-PC

CONTENT CATEGORY: Patient Care

KEYWORDS: Pain, Chinese American, Cancer, Quality Improvement, Barriers
ABSTRACT #5

UNITED STATES ASTHMA HOSPITALIZATION RATES IN THE 21ST CENTURY SHOW A PEAK FEMALE PREDOMINANCE IN THE 5TH-6TH DECADES OF LIFE

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BACKGROUND: Gender differences in asthma hospitalization rates in the United States have not been described in detail.

METHODS: Adult asthma hospitalizations were identified in the National Inpatient Sample (NIS) databases 2000-2010 and clinical characteristics and age/gender specific hospitalizations rates were characterized. The ratio of female to male hospitalization rates (F/M ratio[s]) was calculated for specific ages. Predictive models were generated.

RESULTS: In 2000 the proportions of female vs male hospitalizations with obesity, cigarette smoking and chronic obstructive pulmonary disease (COPD) co-diagnoses were 11.4% vs 5.5%, 3.8% vs 4.9%, and 2.1% vs 1.8% respectively. In 2010, the proportions were 23.8% vs 14.5%, 12.2% vs 16.%, and 5.0% vs 4.5%, respectively. Intubation was less frequent in female hospitalizations (1.6% vs 2.1%). A distinct peaking in F/M ratio (greatest for the 5th-6th decade of life) was observed for all years. In 2000, the F/M ratios for the 3rd/5th/7th decades of life were 2.28/3.06/2.42. In 2010, the F/M ratios for the 3rd/5th/7th decades of life were 1.82/2.88/2.35 Multivariate analysis (GLM) using age decade (polynomially transformed) and study year (negative coefficient) explained 90% of the variation in the F/M ratio for patients 20-89 years old. A multivariate regression model predicting female gender showed that being in the 5th-6th decade of life, obesity and COPD co-diagnoses were positive predictors, whereas discharge year and smoking were negative predictors. Exclusion of identifiable repeat admissions did not diminish the 5th-6th decade association.

CONCLUSION: There is a striking propensity for middle aged women to be admitted for asthma which appears to be independent of many known co-morbidities.

CONTENT CATEGORIES: Epidemiology

KEYWORDS: Asthma, Hospitalizations, Gender, National, Age
ABSTRACT #6

CHINESE WOMEN HAVE GREATER CORTICAL BONE DENSITY AT THE HIP COMPARED TO WHITE WOMEN.

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BACKGROUND: Chinese women have lower rates of hip and forearm fracture than white women despite lower area bone density (aBMD) by dual x-ray absorptiometry (DXA). We recently reported higher cortical bone density as well as greater trabecular and cortical thickness, but smaller bone area at the forearm and tibia as measured by high resolution peripheral quantitative computed tomography (QCT) in Chinese (CH) compared to white (W) women. It is unknown whether the differences in skeletal structure observed at peripheral sites are relevant to the lumbar spine and hip.

METHODS: This study assessed racial differences at the lumbar spine (LS) and hip by QCT. Bone size and volumetric density (vBMD) in pre- (PreM; n=83) and postmenopausal (PostM; n=50) CH and W women were determined by QCT. L1-L2 measures included vertebral cross-sectional area (VBCSA) and mid-vertebra integral (INT) and trabecular (Tb) vBMD. QCT hip measures included INT, Tb and cortical (Ct) vBMD at the femoral neck (FN) and total hip (TH), FN cross-sectional area (FNCS) and the ratio of tissue volume in Ct regions to total tissue volume within the periosteal boundaries (C/I), a measure of Ct thickness.

RESULTS: Age did not differ in either the preM or postM groups; aBMD by DXA did not differ at the spine or hip. At the LS, VBCSA was smaller in CH compared to W women among PostM but not PreM women. There were no racial differences in INT or Tb vBMD in either age group at the spine. At the hip, FNCS was lower in CH than in W women: 6.5% lower (p=0.02) in preM CH and 8.2% lower (p=0.008) in postM CH. Cortical vBMD was 3.6% greater at the TH (p=0.02) in preM CH vs. W women, but there were no differences in Ct vBMD at the FN. Among PostM women, Ct vBMD was 4% greater in CH compared to W women at both the FN (p=0.04) and TH (p=0.03). We observed smaller bone size but greater cortical BMD at the hip in CH versus W women.

CONCLUSIONS: The denser cortical compartment in CH women may provide greater bone strength and therefore a lower risk of fracture despite smaller bone size.

CONTENT CATEGORIES: Epidemiology, Patient Care

KEYWORDS: Osteoporosis, Cortical Bone Density, Chinese, Caucasian, Quantitative Computed Tomography

ABSTRACT #7
TELEHEALTH OCULAR SCREENING IN DIABETES MELLITUS TYPE 1 SUBJECTS

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BACKGROUND: Diabetes mellitus (DM) has been shown to predispose patients to developing “diabetic eye,” characterized as blurry vision, diplopia, floaters and pain. Because of the limited literature on diabetic eye associated with DM type I (DM I), our goal was to determine if patterns of ocular pathology associated with the development of diabetic eye exists in children diagnosed with DM I.

METHODS: A retrospective study of children with DM I, who presented to the Children’s with Diabetes Foundation’s International Conference in Orlando, Florida from July 2-6, 2012.

RESULTS: The average time since initial diagnosis for the 96 patients was 5.34 years (SD 3.62 years). Average fasting blood sugar was 177.12 mg/dL (SD 82.53 mg/dL) with medication. Family history was significant for DM in 55 patients, macular degeneration (MD) in 11 patients, and glaucoma (glauc) in 20 patients. No patient had past ocular history for MD or glauc. Sixty-eight (56.7%) were female and 52 (43.3%) were males. The average age was 11.37 years, (SD 3.59 years) with a range from age 2 to 17 years. Most patients were Caucasian (87.5%). Average visual acuity, in logMAR without correction eyes, in both eyes was -2.41 (Snellen VA 20/1). Twelve cases showed ocular pathology associated with the development of diabetic eye. Four patients had mild optic nerve inflammation. Twelve patients had mild, controlled background diabetic retinopathy (DBR) and 1 patient had flame hemorrhage. All 12 patients had histories of poorly controlled glycemic levels.

CONCLUSION: The visual prognosis of children with DM I is poor if glycemic levels are not well controlled. Ocular pathology noted in this study was development of mild optic nerve inflammation, DBR and flame hemorrhage in children with a history of poorly controlled blood sugar. Uncontrolled DM I can lead to DBR, hemorrhaging of the retinal vessels, and early onset cataracts. Precautionary screenings for this large pool of diabetic patients, who are more prone to “diabetic eye,” results in better control and management of diabetes.

CONTENT CATEGORIES: Epidemiology

KEYWORDS: Diabetes Mellitus Type I, Children, Diabetic Eye, Eye Screening
RECEPTOR (ER, PR and HER2) STATUS IN WOMEN WITH EARLY ONSET BREAST CANCER FROM DIFFERENT RACES.

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BACKGROUND: Breast cancer is a heterogeneous disease and, racial disparity has been observed in the age of occurrence, prognosis and response to the treatment. The objective is to analyze the variations in the expression of the receptor proteins - estrogen receptor (ER), progesterone receptor (PR) and HER-2/neu, in early onset breast cancer in women from different races.

METHODS: Data was collected by reviewing patient charts from the participating institutions. Women were stratified according to age (younger group: 40 year old and younger ; older age group: greater than 40 year old ), races (Caucasian, African American, Hispanic, Chinese and Asian Indian), receptor status (ER, PR and HER-2) according to Luminal A, B, HER-2 and Triple Negative Breast Cancer (TNBC) subtypes, grade and stage.

RESULTS: While African American women have higher percentage of TNBC than the Caucasian, in younger Chinese women, 18.2% presented with TNBC subtype. However, in the same group, the HER-2 overexpression (ER-/PR-, HER-2+), luminal A (ER+/PR+, HER2-) and B (ER+/PR+, HER2+) subtypes were 9.1%, 45.5% and 9.0% respectively. In Indian women, TNBC incidence is 1.5 folds higher in younger age group (34%) than older group (23%) while HER-2 overexpression and the luminal A and B subgroups were 14.3%, 42.2% and 9.5% respectively, somewhat similar to those in Chinese women.

CONCLUSIONS: Our preliminary findings demonstrated that the expression of receptor proteins (ER, PR and Her-2/neu) in early onset breast cancer differs among women from different racial groups, supporting a biological basis for distinct prognosis or therapeutic response related to racial disparities.

CONTENT CATEGORIES: Translational Science

KEYWORDS: Estrogen Receptor, Breast Cancer, Race, Her-2 neu

ABSTRACT #9

ADVANCE DIRECTIVES COMPLETION AMONG ASIAN AMERICAN CHURCH COMMUNITIES
BACKGROUND AND PURPOSE: Asian Americans have low rates of advance directive (AD) completion. This study used a single group pre-post intervention design to pilot test the efficacy of a church-based intervention to increase AD completion among Chinese and Vietnamese Americans.

METHODS: Participants who had not completed an AD were recruited from churches. All participants received 2 group sessions over 4 weeks that provided culturally and spiritually tailored education on AD and guided support on AD completion.

RESULTS: A total of 174 participants were enrolled; 85% (n=147) attended both sessions and completed pre- and post-intervention surveys. Participants’ (N=174) mean age was 63.7 years; 88% were foreign-born; 70% read English less than “well”; and 50% had annual household income <$25,000. Compared to pre-intervention, there were marked increases (p<0.001) in: awareness of AD (23.1% pre to 75.3% post); in-depth conversations with a healthcare proxy (7.1% pre to 25.9% post); and completion of AD (0.0% pre to 67.2% post). About one-third had given their AD to a healthcare proxy (34.5%) and/or to a physician (33.3%).

CONCLUSION: Churches are promising venues for promoting AD completion among Asian Americans.

CONTENT CATEGORY: Patient Care

KEYWORDS: Asian American, Chinese, Vietnamese, Faith-Based, Advance Care Planning, Advance Directive

ABSTRACT #10

ASSESSING THE IMPACT OF PATIENT NAVIGATION WITHIN THE CHINESE AMERICAN COMMUNITY IN NEW YORK CITY
BACKGROUND: Cancer is the second most common cause of death in the United States, exceeded only by heart disease. Early detection of cancer greatly increases the chances for successful treatment. For anyone who has had an abnormal result, there is a critical period between receiving those results and seeking further diagnostic tests to confirm the finding. However, many immigrants face cultural, linguistic, economic, and psychosocial barriers that prevent effective screening for cancer as well as effective access and follow-up care when abnormal results have been detected. With support from the Chia Family Foundation, the Charles B. Wang Community Health Center implemented the Chinatown Cancer Prevention and Care Management Project.

METHODS: Conducted a chart review and data analysis of all patients seen through the Chinatown Cancer Prevention and Care Management Project.

RESULTS: From July 1, 2007 to December 31, 2010, the Health Center provided case management services to 2,390 individuals. This included ensuring timely follow-up care, access to diagnostic tests, confirmation of abnormal results, and treatment for those diagnosed with cancer. Funding from the CHIA foundation provided 524 men and women with physical examinations, which included screening for cancers that were appropriate for the patient’s age, gender, and medical history. Navigation and translation services were provided to 379 men and women with abnormal cancer results and 60 individuals were diagnosed with cancer, 98% were linked to treatment. The Health Center currently experiences a no show rate of 13% for case management referrals, a 27% decrease from beginning of the project.

CONCLUSIONS: Incorporating patient navigation services can lead to greater adherence to provider recommendations and increased patient satisfaction.

CONTENT CATEGORY: Patient Care

KEYWORDS: Asian, Patient Navigation, Care Coordination, Community Health Center, Cancer Screening

ABSTRACT #11

DEVELOPING A FAMILY RESOURCE CENTER IN A COMMUNITY HEALTH CENTER/ PRIMARY CARE SETTING TO PROMOTE SCHOOL READINESS AND HEALTHY CHILD DEVELOPMENT
BACKGROUND: The Charles B. Wang Community Health Center created a Family Resource Center (FRC) to provide services and resources for parents and caregivers of children from birth to age 5 to promote positive parenting, healthy child development, and school readiness. Serving a primarily Asian American population, the health center sought to improve the access and quality of comprehensive and culturally-appropriate medical, educational, and supportive services to immigrant families.

METHODS: After the needs assessment was conducted with parents, clinicians, and community stakeholders, we developed a systematic approach within the pediatrics department to improve the care of vulnerable families. A standardized and validated screening tool was entered into the electronic medical record (EMR) templates of routine health maintenance visits. Educational materials were developed by pediatricians and therapists based on parental concerns. Care coordinators identified and referred parents who reported developmental and behavioral concerns to FRC workshops and/or support groups. Child development experts facilitated parent workshops, support groups and trained on culturally-relevant child development topics.

RESULTS: Process and outcome measures were created to monitor the impact of the FRC. Process measures included revised workflows, number of activities, number of participants in activities, and number of referrals. Outcome measures included number of screenings conducted, referral rates, length of time for referral completion, and changes in parental knowledge, attitudes, skills, and confidence regarding child development issues. Evaluation surveys, focus groups, and in-depth interviews with parents and key pediatric staff were also used.

CONCLUSIONS: The co-location of targeted and culturally-appropriate child development resources can make a dramatic impact on a young child and their families’ lives.

CONTENT CATEGORY: Patient Care

KEYWORDS: Pediatrics, Parenting, Child Development, School Readiness, Educational Resources

ABSTRACT # 12

PROMOTING HEPATITIS B AWARENESS AMONG YOUNG ASIAN AMERICAN VIA SOCIAL NETWORKING

Jonathan Tsao, MPH, ChiaFen Liu, BA, Ming-der Chang, Ph.D.
BACKGROUND: Since 2005, the American Cancer Society Asian Initiatives have collaborated with community-based organizations to educate over 4,300 individuals on Hepatitis B and screen over 2,900 individuals in both New York City and New Jersey. Recently, we discovered that many Asian young professionals have never been screened and are unaware of their risks for chronic infection; this is mostly due to them receiving care from non-Asian physicians who are inexperienced in recognizing risk factors for hepatitis B infection.

METHODS: With this in mind, we aimed to provide more Hepatitis B education to young Asian professionals by collaborating with young professional organizations consisting mainly of members between the ages of 18-35. Since the majority of youth receive information through social media or at social gathering events, we worked together to provide either live educational workshops at social events, or disseminate online educational video to their members; all workshop and online viewers are asked to conduct a pre and post-workshop survey.

RESULTS: Since the start of our project in May 2011, we have partnered with two organizations to educate a total of 64 young professionals. The online education tool and survey was tested by a focus group after production for efficacy, and was distributed to members of 4 different organizations and on Facebook. We expect to co-host 3 more live workshops with additional young American organizations, and provide online education to at least 500 young Asian Americans in next 12 months.

CONCLUSION: So far, we have found that coupling workshops with social events is effective as the social event itself will draw a larger audience for us to reach out and provide education. Further, our online education video is expected to be a cost-efficient method in providing Hepatitis B education, allowing each individual to view the workshop on their own time. Early responses of the online education tool from our focus group were very positive and we will continue to solicit suggestions from users to maximize efficacy.

CONTENT CATEGORY: Patient Care

KEYWORDS: Hepatitis B, Social media

ABSTRACT #13

IMMEDIATE RECONSTRUCTION IN ASIAN AMERICAN WOMEN AFTER MASTECTOMY: TRENDS AND DISPARITIES
BACKGROUND: It has been shown in regional studies that Asian American women with breast cancer undergo reconstruction after mastectomy at lower rates than other racial groups. We seek to determine if disparities exist nationally in immediate reconstruction for Asian American women after mastectomy.

METHODS: We compared socioeconomic and geographic features for 14,986 women who underwent mastectomy in 2008 using the Nationwide Inpatient Sample, an all-payer stratified statistical sample of all US hospital discharges. Asian Americans (n=476) were compared to the national sample. Statistical analysis was performed to understand variations in socioeconomic status, comorbidities, length of stay, and the type of reconstruction (no reconstruction, tissue expander/implant, advanced tissue flap) performed.

RESULTS: Asian women were less likely to undergo reconstruction (66.2% non recon) after mastectomy than the national cohort (63.0%). Asian mastectomy patients were younger (56.5 yrs vs. 60.0 yrs, p<0.001) and healthier (2.86 vs. 3.41 comorbid conditions, p<0.001), with decreased length of stay (2.03 vs. 2.21 days, p=0.12) compared to the national sample. Asians were less likely to have advanced FLAP reconstructions (8.3% vs. 12.0%) and more likely to have private insurance (60.0% vs. 51.6%, p<0.001). Asian breast cancer patients were much more likely to live in a major city (>1 million people) than the national sample (64.1% vs. 30.9%, p<0.001).

CONCLUSIONS: Asian women undergoing mastectomy for breast cancer are younger, healthier, and have private insurance at higher rates than women nationally- yet they obtain immediate breast reconstruction at lower rates, especially advanced flap techniques. Further research needs to be done to understand if patient preference or barriers to access to reconstruction are the cause of these disparities.

CONTENT CATEGORIES: Epidemiology

KEYWORDS: Asian Americans; Healthcare Disparities; Breast Cancer; Breast Reconstruction; Mastectomy

ABSTRACT #14

DISRUPTION OF THE NORMAL FEEDING SCHEDULE ALTERS ENERGY HOMEOSTASIS, AND GLUCOSE AND LIPID METABOLISM
BACKGROUND: Shiftwork and other lifestyle demands of modern societies predispose toward obesity and metabolic syndrome. The underlying mechanisms are unclear, but it is likely that disruption of the normal feeding schedule has adverse metabolic consequences.

METHODS: To model the metabolic effects of shiftwork, obesity-prone C57BL/6J mice were fed a high-fat diet *ad libitum* (LD), or restricted to feeding during the light (L) or dark (D) periods. Because mice are mainly nocturnal feeders, we hypothesized that L-fed mice will develop abnormal energy, glucose and lipid metabolism.

RESULTS: After 4 weeks, the cumulative food intake was lower in L-fed mice (147±15.0 kcal), compared with D-fed (168±16.6 kcal), and LD-fed (169±16.2 kcal) mice (p<0.0001). Body weight was similar in the three groups; however, fat content was 7.2% greater in L-fed mice than LD-fed mice (p<0.05). Oxygen consumption and locomotor activity were significantly lower in L-fed mice than D-fed mice, while the respiratory quotient was higher in L-fed mice than D-fed mice. The normal patterns of blood glucose, insulin and lipids were also changed in L-fed mice.

CONCLUSIONS: These findings suggest that disrupting the normal feeding schedule predisposes to obesity, at least partly, by decreasing energy expenditure and limiting fat oxidation.

CONTENT CATEGORIES: Basic and Translational Science

KEYWORDS: Feeding Entrainment, Energy Expenditure, Obesity

ABSTRACT #15

UNDERSTANDING OBESITY: REGULATION OF FEEDING BEHAVIOR AND LEPTIN BY THE GH-IGF-1 AXIS
BACKGROUND: Obesity is a major public health concern and contributes to over 100,000 preventable deaths every year. According to the CDC, heart disease and stroke are the second and third leading causes of death among Asian Americans. In addition, in the Chinese-American population, rates of heart disease are climbing. Unfortunately, there is a paucity of treatment options for obesity and resulting heart disease. Growth hormone (GH) is a powerful metabolic regulator that, for unknown reasons, is decreased in obese patients. Replacement of GH in obese patients has been shown to decrease body fat, especially at a visceral level. However, a mechanistic explanation for the link between GH and obesity has not been established. We hypothesized that GH may influence levels of leptin, which controls feeding behavior, directly or through an effector protein, IGF-1.

METHODS: Mouse adipocytes were harvested from Jak2L/A mice (a Jak2 liver and adipocyte KO on a C57BL/6 background) and were incubated in vitro in the presence and absence of IGF-1. Cells were harvested and lysed after 4 hours. Leptin mRNA was measured by qRT-PCR and protein production was measured by ELISA (Crystal Chem, Downers Grove, IL).

RESULTS: In Jak2L mice, a three-fold increase in circulating leptin was observed (p<.001, n=5). This increase in leptin was not correlated with increases in fat pad mass. In tissue culture, IGF-1 treated Jak2L/A adipocytes showed a three-fold decrease in leptin mRNA from an average gene copy number of 31704 to 9921 (n=3, p=.008).

CONCLUSION: IGF-1 plays a regulatory role in pre-translational regulation of leptin expression in adipose tissue. Understanding the relationship between GH, IGF-1, and leptin will give us a better understanding of the pathology underlying obesity and may lead to development of novel therapy.

KEYWORDS: Obesity, Leptin, Growth Hormone, IGF-1

CONTENT CATEGORY: Basic and Translational Science