

# **EPIDEMIOLOGY ON THE FRONT LINE AND UNDER FIRE:**

**Focusing Attention on the  
Practical and Methodological Issues  
of Conducting Epidemiologic  
Research Today**



**AMERICAN COLLEGE OF EPIDEMIOLOGY  
ANNUAL SCIENTIFIC SESSIONS**

**September 6-9, 2003**

**Hotel InterContinental · Chicago, Illinois**

# GENERAL INFORMATION



## American College of Epidemiology

The professional organization dedicated to continued education and advocacy for epidemiologists in their efforts to promote the public health.

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

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*Buckingham Fountain, photo by Ron Schramm*

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## Accommodations

The site of the 2003 Annual Meeting is the Hotel InterContinental located in Chicago, Illinois. The hotel offers special rates of \$195 single/double occupancy. Please tell them you are attending the ACE Annual Meeting and reserve before August 14, 2003. For reservations please contact the hotel directly by calling (312) 944-4100 or 800-628-2112.

### Social Event –

### Private Wine Tasting

September 8, 7:30 - 10:30pm

#### City Ventures – “City Touring in Style”

Private wine-tasting expert presides over two-hour tasting which will guide participants in the art of comparing and contrasting fine wine. Hosted at La Vita Restaurant on Taylor Street in Chicago’s Little Italy, Tasting will be held on the rooftop garden, weather permitting, or a private section of the inviting contemporary dining room. Chef and wine expert will pair five appetizers and one sorbet to match six choice wines.

PRICE: \$50.00/per person – based on guaranteed number of 20 persons.

Price includes personal escorts, wine expert, wines, appetizers, sorbet, all taxes, and gratuities.

Transportation not included.



## Thanks to our Sponsors!

Epidemiology and Genetics Research Program/  
National Cancer Institute

University of Illinois at Chicago

# PRECONFERENCE WORKSHOPS



Vito Palmisano

## Workshop 1 – Multilevel Analysis in Public Health

### Faculty:

Ron Harrist PhD, Associate Professor of Biometry, University of Texas Health Science Center at Houston, School of Public Health

Kay Kimball, PhD, Baylor College of Medicine, Dept. of Medicine

### September 7, 9 am - 5 pm

Multilevel analysis has emerged as a powerful new analytic technique with many potential applications in public health and epidemiology. This workshop will:

1. Review the rationale for the use of multilevel analysis in epidemiology generally and in social epidemiology in particular
2. Summarize fundamental concepts in the multilevel approach, review the basics of multilevel models for continuous and dichotomous outcomes, and show how multilevel models differ from other analytical approaches
3. Provide examples of applications of multilevel models in analyses involving individuals nested within groups and repeated measures nested within individuals. The use of two different software packages will also be briefly illustrated. Although previous understanding of linear and logistic regression analysis will be required, no previous experience with multilevel analysis is necessary. The workshop will emphasize fundamental issues, concepts, interpretation, and application rather than mathematical derivations.

### Goals of this workshop:

- Understand the strengths and limitations of multilevel analysis in public health and epidemiology
- Understand the fundamentals of multilevel models, the situations in which they are useful, and how these models differ from standard epidemiologic approaches
- Understand the basics of fitting multilevel models and interpreting key results using available software

## Workshop 2 –

### Applying Quantitative Sensitivity Analysis to Epidemiologic Data

### Faculty:

Timothy L. Lash, DSc, MPH, Assistant Professor, Department of Epidemiology, Boston University School of Public Health

### Target Audience:

Epidemiologists familiar with threats to validity (selection bias, misclassification, and confounding), basic algebra, and statistical computing.

### September 7, 9 am - 5 pm

Observational epidemiologic studies yield estimates of effect that differ from the true effect because of random error and systematic error. Epidemiologists design studies and analyses to minimize both sources of error. When presenting our results, epidemiologists conventionally estimate the residual random error about the estimates of effect, whereas we ignore or only qualitatively describe residual systematic error. Sensitivity analysis provides one method of quantifying residual systematic error. Participants in this workshop will learn how to use simple and probabilistic sensitivity analyses to estimate all of the error about their estimates of effect.

The interactive workshop will present topics that address the objectives described below. After each segment, participants will interactively solve problems in a notebook that illustrate the preceding segment's objective. All of the presentation materials and the problems will be provided in the notebook, as will a bibliography of primary literature citations to the methods literature. Participants should bring a scientific calculator. Participants who attend with a laptop computer and an installed version of SAS 8.0 (including the IML component) will be able to implement the SAS code at the workshop. All participants will be able to follow the SAS implementation and will receive a copy of the SAS code and example data set on a floppy disk.

Participants should expect to gain new skills, as the emphasis of the workshop will be on the implementation of sensitivity analysis, not on its underlying philosophy.

### Goals of this workshop:

Participants who complete the workshop will be able to:

1. Describe methods to estimate non-random error in observational data and compare the advantages and disadvantages of these methods.

2. Quantify error arising from selection bias or misclassification of exposure, disease, or a covariate using simple sensitivity analysis.
3. Calculate bounds on the relative risk due to confounding arising from an unknown or unmeasured confounder.
4. Distinguish probabilistic methods of sensitivity analysis that impute data to calculate a distribution of estimates of effect from those that apply bias parameters to the original estimates of effect.
5. Compare the advantages and disadvantages of the two aforementioned methods of Monte Carlo sensitivity analysis.
6. Use bootstrapping in combination with the imputation method to obtain a distribution of estimates of effect that quantifies both random and systematic error.
7. Implement provided SAS software, in conjunction with a sample data set, to accomplish both methods of probabilistic sensitivity analysis.

## Workshop 3 – Cognitive Issues Related to the Design of Valid Survey Questions

### Faculty:

Richard B. Warnecke, PhD, Associate Director, Cancer Control and Population Science, University of Illinois at Chicago\*

Diane P. O'Rourke, MA, Consultant\*\*

### September 7, 9 am - 5 pm

As there is increasing diversity in the population of the United States, there is increasing reason to question whether standard survey questions are valid in these new populations. There is also growing evidence that even with the general population, there are real questions regarding the validity of responses to standard questions. The workshop will focus on the cognitive processes individuals use to understand and process questions. It will also examine how the understanding and processing of survey questions is affected by ethnicity and culture. We will consider some general issues of questionnaire design and how these are likely to be affected by the way individuals process information in order to answer questions. Finally, we will examine and discuss some issues around response rates to surveys and what impact they might have on the overall validity of the conclusions that are drawn from surveys using various modes of data collection.

### Goals of the workshop:

- Review the ways in which one can assess the cognitive framework a group of respondents might bring to a survey questionnaire.
- Review cognitive processes related to:
  - Understanding the questions being asked.
    - “Is the respondent responding to the question you have asked?”
  - How the respondent retrieves information that will be used to answer the question.
    - “How accurate is the respondent’s answer?”
    - “How specific are the data that are used to form the response?”
  - Formation of judgments in response to questions requiring a judgment to be made
    - “How accessible is the information that is used by the respondent to form a judgment?”
    - “What processes are involved in forming judgments?”
    - “How are the judgments affected by the wording of the question or the response scale offered to the respondent?”
    - “Does the response scale matter?” “Are labels better than numbers for response categories?”
- Does the respondent fully report the information retrieved or the judgment that is formed or is it edited?
  - “What is response bias?”
  - “How much effect does social desirability have on responses?”
  - “How can you assess that the respondent is telling you everything that is relevant?”
- What is the latest information on response rates?
- What effect does the mode of the interview have on response?
- To what extent do ethnicity and other factors affect response to the request for information?
- What is the role of incentives? Are they needed?

\* Dr. Warnecke was previously Director of the University of Illinois at Chicago Survey Research Laboratory.

\*\* Ms. O'Rourke recently retired as Assistant Director for Survey Operations of the University of Illinois at Chicago Survey Research Laboratory.

# PRECONFERENCE WORKSHOPS

## Workshop 4 –

### New Approaches in Molecular Epidemiology

#### Faculty:

Tim Rebbeck, PhD, University of Pennsylvania

#### September 7, 8:45 am - 12:45 pm

This will be a half-day workshop in four parts. The workshop will focus on new, non-family-based epidemiological methods that can be used to identify the effects of genes in commonly occurring diseases in humans. The first part will consist of a review of population genetics designed to provide a background in the distribution of genotypes in populations, including concepts of allele and gene frequency, Hardy-Weinberg equilibrium, and linkage disequilibrium. These concepts will be used to motivate our understanding of how genes “behave” in populations and how epidemiologists may use this information to identify disease genes. The second part will provide an overview of biomarkers, including the selection and use of biomarkers for epidemiological studies. Emphasis will be given to DNA-based genotypes, as well as laboratory-based methods of DNA analysis including high throughput genotyping technology. The third part will consist of study design issues specific to molecular epidemiological studies. This portion of the session will focus on designs that are unique to studies attempting to identify genes involved in disease, including efficient designs for the identification of genotype-environment interactions. The fourth part will present approaches to the analysis of high dimensional data that are inherent to genotype-environment interactions that are the hallmark of complex diseases. At the completion of this workshop, participants should have a conceptual understanding of these approaches, the appropriate application of these methods, as well as their limitations.

#### Goals of this workshop:

- Review selected technical topics related to genetic polymorphisms, including their behavior in populations and laboratory detection.
- Describe new study designs that can be used to identify the effects of genes, in studies of commonly occurring human disease.
- Describe analytical approaches that can be used to deal with high dimensionality data, such as would be expected in genotype-environment interactions.

## Workshop 5 –

### Teaching the Teacher: Essential Tools for Analyzing Large Public Health Data Sets

#### Faculty:

Selected analysts at the National Center for Health Statistics, selected faculty from Schools of Public Health

#### Target Audience:

This workshop is designed for graduate school faculty in departments of epidemiology and others responsible for curriculum development at schools of epidemiology.

#### September 7, 1 - 5 pm

This half-day workshop is designed to introduce methods and materials for potential use in teaching the use of large public health data sets to graduate level students in schools of epidemiology. Examples will come from data sets of CDC’s National Center for Health Statistics. The workshop will begin with an overview of NCHS data sets, including survey design, content, and examples of analyses of the data. Workshop faculty will discuss their proposed approach of developing prototype “modules” for teaching selected topical areas, that can be applied to classroom use. Proposed modules will present an analytic “question of interest,” identify an NCHS data set(s) for use in addressing the question, describe appropriate analytic tools for answering the question, and describe steps to arrive at a solution(s). Modules will include, as appropriate, consideration of issues of sampling, weighting, and appropriate statistical software for analysis with specific data sets. This is designed to be an interactive workshop, and participants are expected to discuss strengths and weaknesses of the proposed modules and their potential application for use in their classroom.

#### Goals of the Workshop:

Upon completion, participants will be able to:

1. Identify major data systems of NCHS and describe data collection methods and survey content
2. Describe examples of analytic uses of data sets
3. Understand the complexities of data sets and assess appropriate statistical methods for analysis of data
4. Understand how to use selected modules for presenting teaching topics
5. Identify applications for use in their classrooms

## Workshop 6 –

### Ethical Issues Arising from Differing Study Designs – Cohort Studies vs. Randomized Clinical Trials

#### Faculty:

Robert E. McKeown, PhD, Graduate Director for Epidemiology, Department of Epidemiology and Biostatistics, Arnold School of Public Health, University of South Carolina

Ravi Thadhani, MD, MPH, Assistant Professor of Medicine, Harvard Medical School

Jeremy Sugarman, MD, MPH, MA, Director, Center for the Study of Medical Ethics and Humanities and Professor of Medicine and Philosophy, Duke University

George Khushf, PhD, Center for Bioethics and Medical Humanities and Associate Professor of Philosophy, University of South Carolina

Douglas L. Weed, MD, PhD, Chief, Office of Preventive Oncology, Division of Cancer Prevention, National Cancer Institute

#### September 6, 1 - 5 pm

Recent reports have raised questions about the evaluation of evidence from observational cohort studies, especially when there are conflicting findings from randomized clinical trials. While the RCT is often considered the gold standard in epidemiologic studies, there are occasions when conducting an RCT is impractical or even unethical.

Questions arise about when, if ever, recommendations or action should be based solely on the evidence of observational studies. The ethical issues, however, can range far beyond questions about validity of findings and choice of study designs, as questions are raised concerning access to treatments, uncertainty of all research findings, impact of government policy for Medicare and Medicaid, and the balance of risks, costs, and benefits, among others. This workshop will focus on a particular case that raises these and other issues. The case study will serve both as an example in the use of case studies for ethics instruction and exploration and as a vehicle for examining important ethical issues arising from one of the critical debates in our field.

No previous experience in ethical theory or analysis is assumed.

#### Goals of this workshop:

- Understand the use of case studies for ethical instruction and exploration.



Photo by Mike Gustafson

- Learn about sources of cases and development of new cases.
- Examine a specific case in depth to understand the use of cases and to explore the specific ethical issues it raises.
- Critically analyze central ethical issues raised by observational epidemiology studies and randomized clinical trials, including when they should be used and when their findings conflict.
- Understand the range of ethical issues and implications beyond epidemiologic study design that may emerge from observational studies and randomized clinical trials used as a basis for policy or prevention or treatment recommendations.

## Workshop 7 –

### What's an Epidemiologist to Do? Implications of the Classification of Race and Ethnicity for Research on Health Disparities in Blacks, Asians, Native Hawaiians, and other Pacific Islanders

#### Faculty:

Vickie M. Mays, PhD, MSPH, University of California, Los Angeles, ACE Minority Affairs Committee Chair

Mildred Hunter, MPH, OMH, Minority Health Region

#### September 6, 9 am - 4 pm

- How to think about your choices in classifying the race and ethnicity of participants in your data—what about multiple race?
- Statistical choices in health disparities research with racial/ethnic minorities
- How important is racial and ethnic classification to genetic explanations for health disparities in African American, black, Asian, native Hawaiian and other Pacific Islander populations?

# PRELIMINARY PROGRAM

## Saturday, September 6

### Preconference Workshops

May choose one of two:

**1:00 - 5:00pm**      **Workshop 6 (half-day) – Ethical Issues Arising from Differing Study Designs – Cohort Studies vs. Randomized Clinical Trials**  
*Robert McKeown, Organizer*  
(free to participants)

**9:00am - 4:00pm**      **Workshop 7 (full-day) – What’s an Epidemiologist to Do? Implications of the Classification of Race and Ethnicity for Research on Health Disparities in Blacks, Asians, Native Hawaiians, and other Pacific Islanders**  
*Vickie Mays, Organizer*  
(free to all)

**5:00 - 7:00pm**      **Board of Directors Meeting**

## Sunday, September 7

**7:30am - 8:00pm**      **Conference registration**

**8:00am - 3:00pm**      **Board of Directors Meeting**

### Preconference Workshops

*John Acquavella, Organizer*

May choose one of three full-day workshops, or up to two half-day workshops (registration fee charged):

**9:00am - 5:00pm**      **Workshop 1 – Multilevel Analysis in Public Health**  
*Ron Harrist, University of Texas School of Public Health*

**9:00am - 5:00pm**      **Workshop 2 – Applying Quantitative Sensitivity Analysis to Epidemiologic Data**  
*Timothy L. Lash, Boston University School of Public Health*

**9:00am - 5:00pm**      **Workshop 3 – Cognitive Issues Related to the Design of Valid Survey Questions**  
*Dick Warnecke, University of Illinois at Chicago*

**8:45am - 12:45pm**      **Workshop 4 – New Approaches in Molecular Epidemiology**  
*Timothy Rebbeck, University of Pennsylvania*

**1:00 - 5:00 pm**      **Workshop 5 – Teaching the Teacher: Essential Tools for Analyzing Large Public Health Data Sets**  
*Selected analysts at the National Center for Health Statistics, selected faculty from Schools of Public Health*

**7:00 - 9:00pm**      **Host Reception (Chicago: Faith Davis) and Inaugural, Late-Breaking Poster Session**

**Submit your abstract by July 31 to [info@acepidemiology.org](mailto:info@acepidemiology.org).**



Michigan Avenue, photo by Ron Schramm



## Monday, September 8

**7:00am - 5:00pm**     **Registration**

**8:30 - 9:00am**     **Welcome to ACE Annual Meeting**  
*Carol Hogue, Emory University*

**Welcome to Chicago**  
*Susan Scrimshaw, Dean, UIC SPH*

**9:00 - 9:45am**     **Keynote Address – How Much and for How Long Did the WTC Impact on Residents throughout the City? The Epidemiology of Mental Health Among New York City Residents Following September 11th**  
*David Vlahov, Director, Center for Urban Epidemiologic Studies at the New York Academy of Medicine*

**9:45 - 10:00am**     **Beverage Break**

**10:00am - 12:00**     **Symposium I – When Observational Studies and Randomized Trials Conflict: Lessons from Recent Studies**  
*Marlene Goldman, Beth Israel Deaconess Medical Center, Harvard Medical School, Moderator*

*Steven N. Goodman, John Hopkins Bloomberg School of Public Health – From a Trialist's Perspective*

*Julie E. Buring, Brigham & Women's Hospital, Harvard Medical School – Lessons from the Women's Health Initiative, Nurses, and Physicians Studies*

*Robert N. Hoover, National Cancer Institute – Conflicts and Concordance in Trials and Observations*

*Elizabeth Barrett-Connor, University of California at San Diego – What Have We Learned?*

**12:00 - 12:10pm**

**Break**

**12:10 - 2:20pm**

**Buffet Lunch**  
*By reservation only – must pre-register for lunch*  
**Roundtables – Competencies for Doctoral Trained Epidemiologists**  
*Jonathan Samet, Moderator*

**Report of the Competencies Workshop**  
*Jonathon Samet and Mike Stoto*

**Followed by: Facilitated roundtable discussions about what the role of ACE should be in fostering PhD Competencies**

**2:20 - 2:30pm**

**Break**

**2:30 - 4:00pm**

**Policy Forum – HIPAA and Beyond**  
*Faith Davis, Moderator*

**Overview of HIPAA Rules for Epidemiologic Studies**  
*Dennis Deepen*

**HIPAA Subcommittee of ACE Policy Committee Response**  
*Robert Hiatt*

**Corporate Perspective**  
*Robin C. Leonard, Dupont*

**General discussion, including case studies**

**4:00 - 4:30pm**

**Presentation by the American Chemistry Council Award Winner, Robert Lyles**  
*Introduction by John Acquavella, Monsanto*

**4:30 - 5:15pm**

**ACE Business Meeting (members only)**

**5:15 - 7:15pm**

**Poster Session/Reception**  
*Irene Hall, Poster Committee Chair*

**7:15 - 10:00pm**

**Evening Out**  
*(See page 3 for details.)*



# PRELIMINARY PROGRAM

## Tuesday, September 9

7:00 - 11:00am Registration

7:30 - 8:45am **Breakfast Roundtables** (various topics, including these listed)

**Conversation with JAMA editor**

**Conversation with *Annals of Epidemiology* editor**

**Conversation with ESOP Committee regarding upstream causes of war**

8:45 - 8:50am Break

8:50 - 9:20am **Presidential Address – “Just the FAQs, Ma’am”**  
*Carol Hogue*

9:20 - 9:50am **Student Prize Paper**

9:50 - 10:00am Break

10:00am - 12:00 **Symposium II – Challenges and Solutions to Conducting Epidemiologic Studies in the Current Era**

*Moderator, Ed Trapido, NCI*

**Gene-Environment Analyses**  
*Sandra Melnick, NCI, invited*

**Telephone, Internet or Other Survey Approaches?**  
*David Sly, invited*

**Probabilistic Record Linkage**  
*Jack Leiss, invited*

12:00 - 2:15pm

**Lillienfeld Awards Banquet, honoring Dr. Elizabeth Barrett-Connor**

2:15 - 2:30pm

**Break**

2:30 - 4:30pm

**Symposium III – Challenges to Surveillance**

*Moderator, Toni Alterman, NIOSH*

**Speakers, representing varied perspectives, will discuss the general issues using specific examples:**

**Academic Perspective**

*Betsy Marshall, UMDNJ – Reproductive Surveillance*

**Federal Government Perspective**

*Penn Jacobs, NCEH – Childhood Blood Lead*

**Insurance Perspective**

*Gordon Smith, Liberty Mutual – Obtaining Occupational Data from Population-Based Surveys: Methods, Biases and Suggestions*

**Industry Perspective**

*William B. Bunn III, International Truck and Engine Corporation – Monitoring and Managing Injuries with Epidemiology*

**Labor Perspective**

*Janie Gittleman (Associate Director, Safety and Health Research, Center to Protect Workers' Rights) – Discussant*

4:45pm

**Adjourn**

**2004 ACE Annual Scientific Sessions**

**September 11 - 14, 2004**

**Boston, Massachusetts**

# REGISTRATION FORM

## ACE Annual Scientific Sessions

September 6-9, 2003 • Hotel InterContinental • Chicago, Illinois

Pre-registration closes on August 15, 2003. Registrations received after August 15 will be processed at on-site rates. Refunds will be issued for cancellations received in writing by August 22, 2003.

Please print or type the following information. It will be used to print your name badge and mail your confirmation.

Name \_\_\_\_\_  
FIRST MIDDLE LAST DEGREE

Institution \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Daytime Telephone \_\_\_\_\_ Fax \_\_\_\_\_

E-mail \_\_\_\_\_

### Workshop Registration

#### Preconference Workshops – September 7

Five workshops will be held on Sunday, September 7. Enrollment is limited. Please indicate your 1st, 2nd, and 3rd choices. You will be assigned your highest priority available.

\_\_\_\_\_ **Workshop 1** – (Full Day) Multilevel Analysis in Public Health, Ron Harrist, University of Texas School of Public Health

\_\_\_\_\_ **Workshop 2** – (Full Day) Applying Quantitative Sensitivity Analysis to Epidemiologic Data, Timothy L. Lash, Boston University School of Public Health

\_\_\_\_\_ **Workshop 3** – (Full Day) Cognitive Issues Related to the Design of Valid Survey Questions, Dick Warnecke, University of Illinois at Chicago

\_\_\_\_\_ **Workshop 4** – (Half Day) New Approaches in Molecular Epidemiology, Tim Rebbeck, University of Pennsylvania

\_\_\_\_\_ **Workshop 5** – (Half Day) Teaching the Teacher: Essential Tools for Analyzing Large Public Health Data Sets

#### Fee for Full-Day Workshops (1, 2, 3)

Member ..... \$165 ..... \$ \_\_\_\_\_

Non-Member ..... \$210 ..... \$ \_\_\_\_\_

Student\* ..... \$110 ..... \$ \_\_\_\_\_

#### Fee for Half-Day Workshop (4, 5)

Member ..... \$105 ..... \$ \_\_\_\_\_

Non-Member ..... \$165 ..... \$ \_\_\_\_\_

Student\* ..... \$ 85 ..... \$ \_\_\_\_\_

(A \$50 surcharge will be assessed for on-site preconference workshop registration.)

#### Workshops Free of Charge – September 6

Two workshops will be held on Saturday, September 6, free of charge. Please indicate which one you would like to attend:

\_\_\_\_\_ **Workshop 6 (1 - 5pm)** – Ethical Issues Arising from Differing Study Designs – Cohort Studies vs. Randomized Clinical Trials, Robert McKeown, ESOP Committee Chair

\_\_\_\_\_ **Workshop 7 (9am - 4pm)** – What's an Epidemiologist to Do? Implications of the Classification of Race and Ethnicity for Research on Health Disparities in Blacks, Asians, Native Hawaiians, and other Pacific Islanders, Vickie Mays, ACE Minority Affairs Committee Chair

#### Monday Lunch/Roundtables – September 8

(must pre-register – includes lunch)

\_\_\_\_\_ Competencies for Doctoral Trained Epidemiologists  
..... \$19 ..... \$ \_\_\_\_\_

### General Registration

Registration includes all sessions (except preconference workshops and lunch roundtable workshops), breaks, roundtable breakfast, banquet, and poster reception.

	Before 8/15	After 8/15 and On-site	
Member .....	\$250 .....	\$300 .....	\$ _____
Non-Member .....	\$340 .....	\$380 .....	\$ _____
Student* .....	\$120 .....	\$150 .....	\$ _____

\*Proof of student status is required.

Registrations received after 8/22 will be processed on-site.

### Banquet

Do you plan to attend the Tuesday lunch banquet on September 9?

Yes  No

### Wine Tasting Registration

(See meeting brochure for details. Pre-register to ensure availability.)

**Contact City Ventures at:** Email: cityventuresinc@aol.com  
Phone: (708) 386-5668 • Fax: (708) 763-9413

### Special Services

Please check here if you require special accommodations to fully participate. Attach a written description.

### Payment Information

**TOTAL ENCLOSED** ..... \$ \_\_\_\_\_

Check or credit card information must be received with registration form. Please either fax **OR** mail registration form. Do not fax **AND** mail registration form! Thank you.

Check (US currency, payable to American College of Epidemiology)  
 MasterCard  Visa  American Express

Authorized Cardholder (Please print): \_\_\_\_\_

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American College of Epidemiology  
1500 Sunday Drive, Suite 102  
Raleigh, North Carolina 27607  
Phone: (919) 861-5573 • Fax: (919) 787-4916

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**For Membership Information** – Please visit the ACE website at [www.acepidemiology.org](http://www.acepidemiology.org).

**American College of Epidemiology**

1500 Sunday Drive, Suite 102

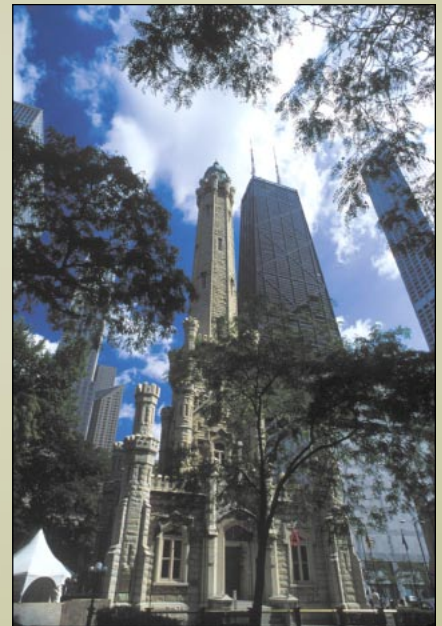
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*Buckingham Fountain, Vito Palmisano*



*Chicago Theatre, Cheryl Tadin*



*Chicago Water Tower, Todd Rosenberg*



*Chicago skyline, Vito Palmisano*