Building the Next Generation of Public Health Professionals: Collaborative Programs that Work!

Leanne H. Field, Ph.D. The University of Texas at Austin

# GOAL

To Educate and Develop the Next Generation of Public Health Professionals to Meet Workforce Shortages in our City, State and Nation

### BECOME A DISEASE DETECTIVE Discover Public Health!





Don't Miss This Exciting Conference! Free Lunch! Free Books! Free Pizza! It's All Free!

www.sbs.utexas.edu/publichealth/





**APRIL 5 TEXAS UNION · 12PM-8PM** THE UNIVERSITY OF TEXAS AT AUSTIN



# The University of Texas at Austin









# DEMOGRAPHICS

Enrollment: 51,426
Classification:
Undergraduates: 74.6%
Graduates: 25.4%

•Average Age: 20.7 years







# DEMOGRAPHICS

# Ethnicity

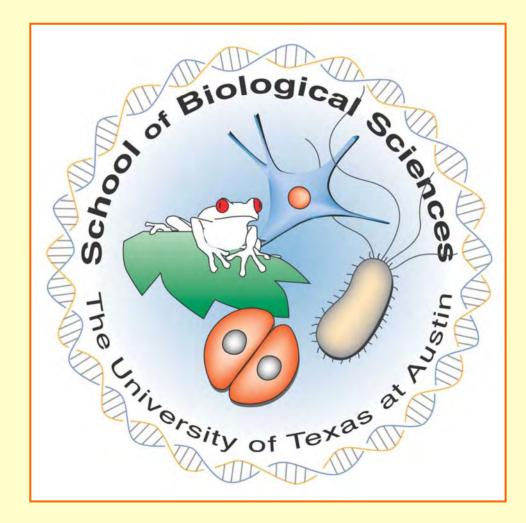
- •White: 60.6%
- •Asian American: 17%
- •Hispanic: 14.3%
- •African American 3.6%
- •American Indian 0.4%
- •Foreign 3.5%







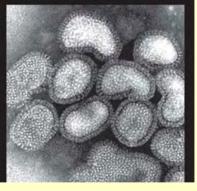
# **2800 BIOLOGY MAJORS!!**



**BECOME A** DISEASE DETECTIVE Discover **Public Health!** 







A Conference to Educate University Students, Faculty and Advisors about Public Health A University of Texas at Austin event to raise awareness about the field of public health

Sept. 16, 2003

### BECOME A DISEASE DETECTIVE Discover Public Health!

#### KEYNOTE SPEAKER

WELCH 2.224 5:15-6:30 PM Joe McCormick, M.D., speaking on "Disease Detectives in Action: From Ebola and HIV in Africa to TB in South Texas"

#### PANELISTS

#### Welch 2.224 5:15-6:30 PM

- Dr. Richard Respess Centers for Disease Control and Prevention
- Dr. Dennis Perrotta State Epidemiologist, Texas Dept. of Health
- Dr. Susan Neill Texas Department of Health Bureau of Laboratories
- Dr. Alicia Dorsey TEXAS A&M SCHOOL OF RURAL PUBLIC HEALTH

### EXHIBITS BY PUBLIC HEALTH PROFESSIONALS

#### Welch Hall Main Corridor 4:00-7:30 pm

Centers for Disease Control and Prevention, Texas Department of Health, Association of Public Health Laboratories, Association of Schools of Public Health, Council of State and Territorial Epidemiologists, U.S. Public Health Service, Peace Corps, The University of Texas Health Science Center at Houston School of Public Health, Texas A&M University Health Science Center School of Rural Public Health. The University of North Texas Health Science Center at Fort Worth School of Public Health, The University of Texas at Austin: Natural Sciences Career Services, Health Professions Office, and School of Nursing.

### ACTIVITIES

#### Welch Hall Main Corridor 6:45-7:30 pm

Enjoy Refreshments and Network with Presenters and Public Health Professionals A drawing will be held for 20 autographed copies of "Level 4;Virus Hunters of the CDC"donated by the University Co-op For more information, visit our website at www.sbs.utexa.sedu/publichealth/

#### SPONSORS

College of Natural Sciences: Career Services, Health Professions Office, School of Biological Sciences, Section of Molecular Genetics and Microbiology Texas Department of Health, Bureau of Laboratories Association of Public Health Laboratories

## September 2003

### BECOME A DISEASE DETECTIVE Discover Public Health!





### APRIL 5

### TEXAS UNION · 12PM-8PM · THE UNIVERSITY OF TEXAS AT AUSTIN

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6-15-7-mpan	Refréshments Eshifiths/Resource Center			
1:00pm	Humanitarian Orisis In Sudian: A Doctor Without Bordery FABY JORDAN		Qui	YEULA
8-00-8-10pm	Eahlatts/Resource Center Open 30 more minutes?			NERHABITS A

## **April 2006**



Generous funding for the 2006 conference provided by...

# The Center for Biosecurity and Public Health Preparedness

# University of Texas Health Science Center at Houston School of Public Health



THE UNIVERSITY of TEXAS School of Public Health

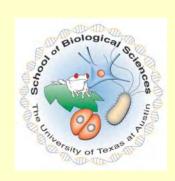


A successful collaboration between....

- The University of Texas at Austin
  - College of Natural Sciences
    - School of Biological Sciences
    - Natural Sciences Career Services
    - Health Professions Office

College of Natural Sciences





# ...and its Public Health Partners!

- The University of Texas School of Public Health
- Texas Department of State Health Services
- Austin/Travis County Health and Human Services Department
- Association of Public Health Laboratories



THE UNIVERSITY of TEXAS School of Public Health







Conference designed for two distinct populations...

## • University (and high school) students

- Keenly interested in current topics in public health (especially international public health)
- Little understanding of the educational pathways that lead to public health careers
- University faculty, advisors, career counselors
  - Unaware of the diversity of career opportunities within public health
  - Have few resources to advise interested students

# Advisors and Career Counselors are Key!

On average, each advisor in the College of Natural Sciences....

- is assigned to over 500 students
- has in excess of 1500 student contacts per year with undergraduate students



# Two days of conference activities

- April 4<sup>th</sup> : Professional Development Luncheon to educate faculty, academic advisors and career counselors
- April 5<sup>th</sup>: Scientific Conference for students, faculty and advisors

## **Professional Development Luncheon**



Faculty, advisors and career counselors were invited to have lunch with public health professionals from

 Graduate schools of public health and ASPH



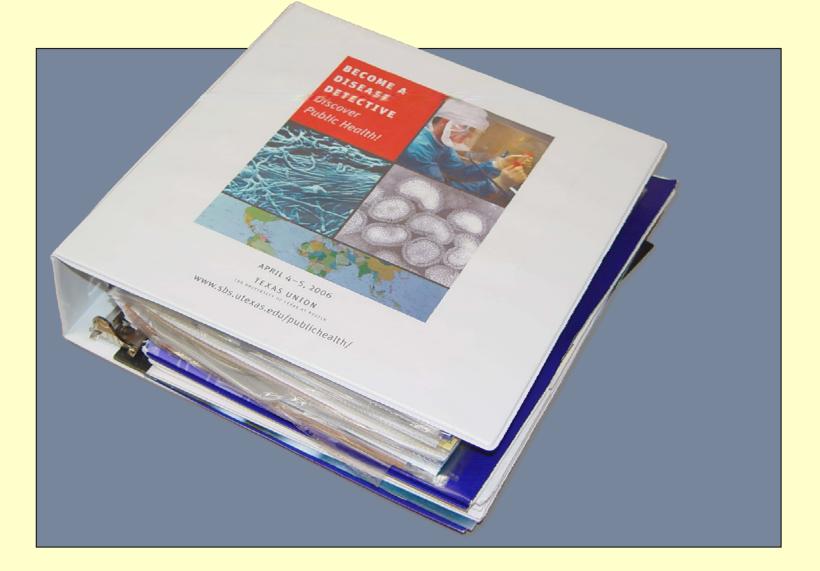
- Federal, state and local public health practice agencies
- Public health organizations APHL!







## **Resource Notebooks**







### **Networking opportunities**









# Fajita Lunch!



# Dr. Diane Kneeland kicked off the luncheon program ...



# .....with Fun Door Prizes!



Dr. Eduardo Sanchez, Commissioner Texas Dept. of State Health Services



## Dr. Dennis Perrotta Keeping Our Home Healthy: Careers in Public Health





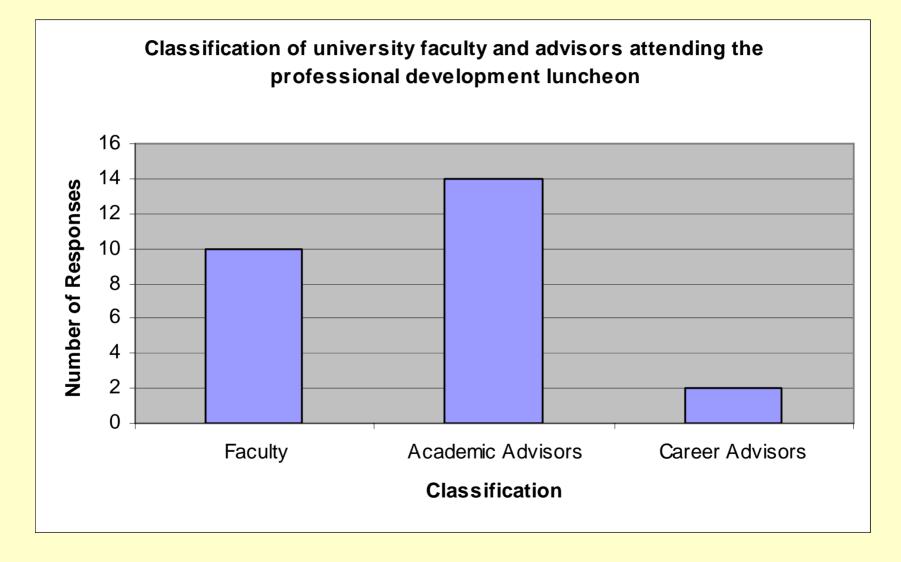
## **Luncheon Evaluations**



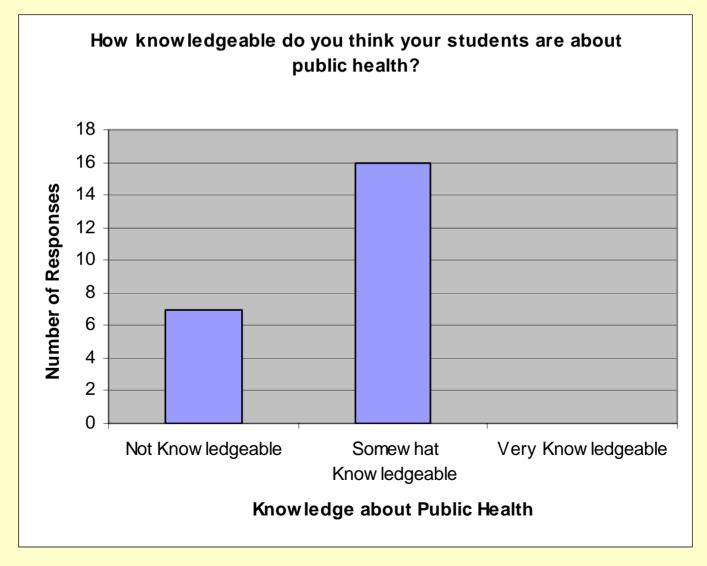
# Who Attended the Luncheon?

Institution	Number of Participants Responding
State Health Depart.	9
Local Health Dept.	8
College or University	35
Public Health Organization	2
Total	54

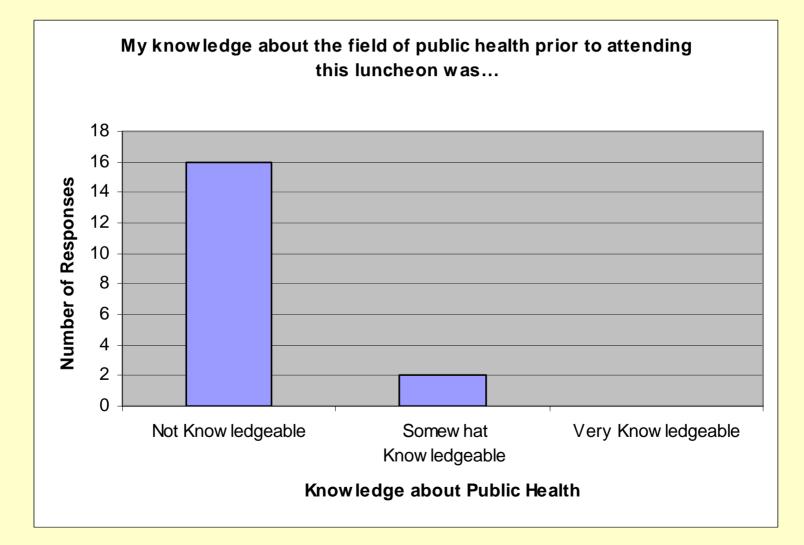
# The Target Audience From UT Austin



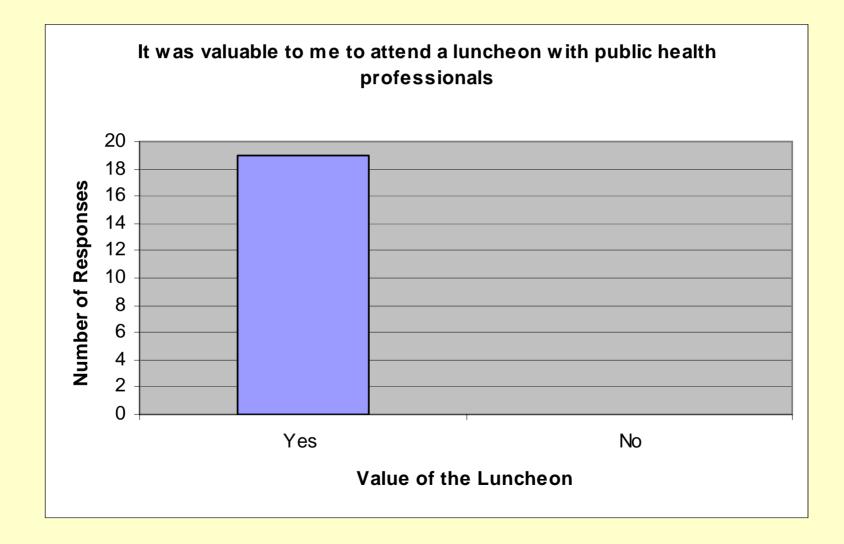
# Students' Knowledge about Public Health



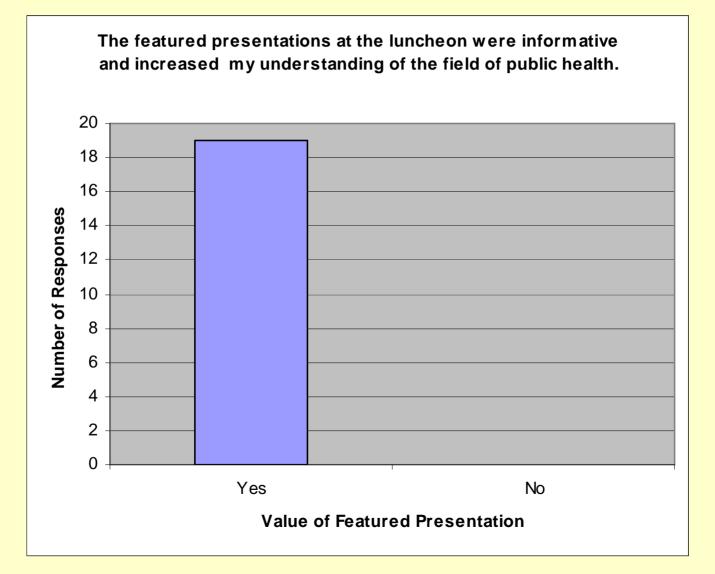
# Faculty and Advisors' Knowledge about Public Health



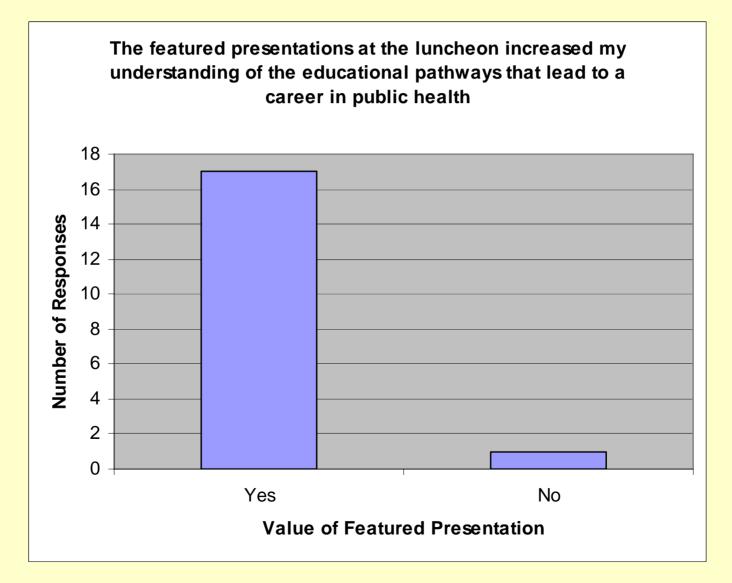
# Value of the Luncheon



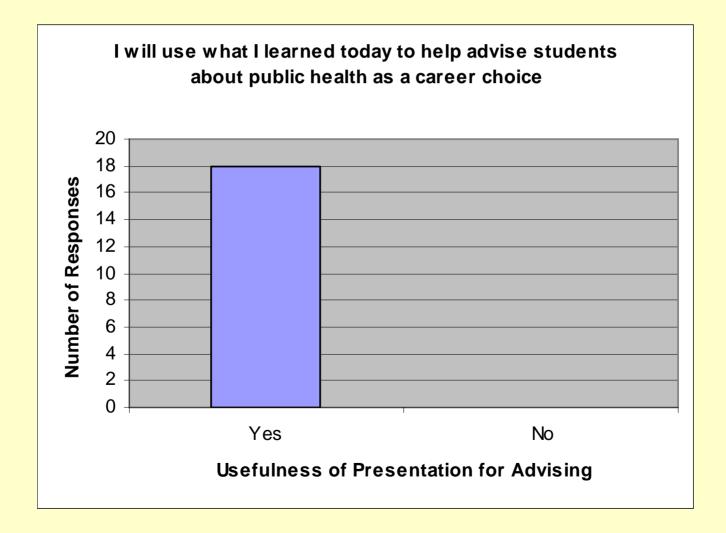
# Value of Featured Presentations



# Value of Featured Presentations

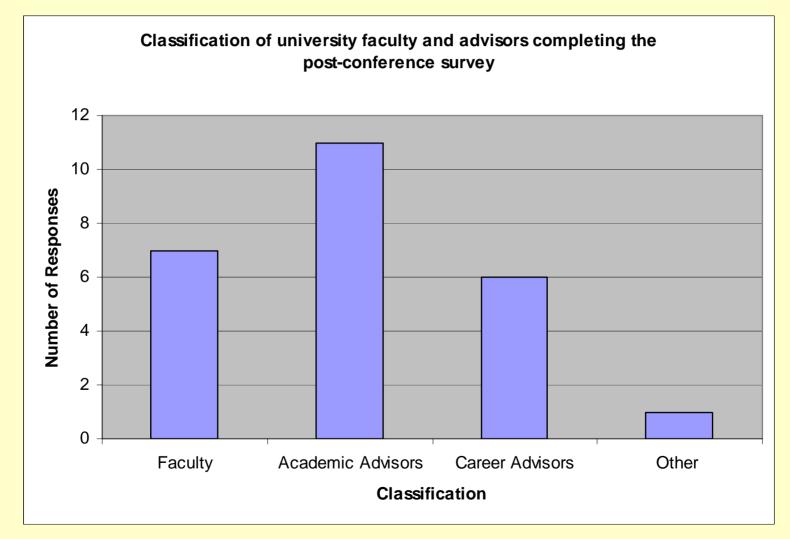


#### Usefulness of Luncheon Presentation for Advising Students

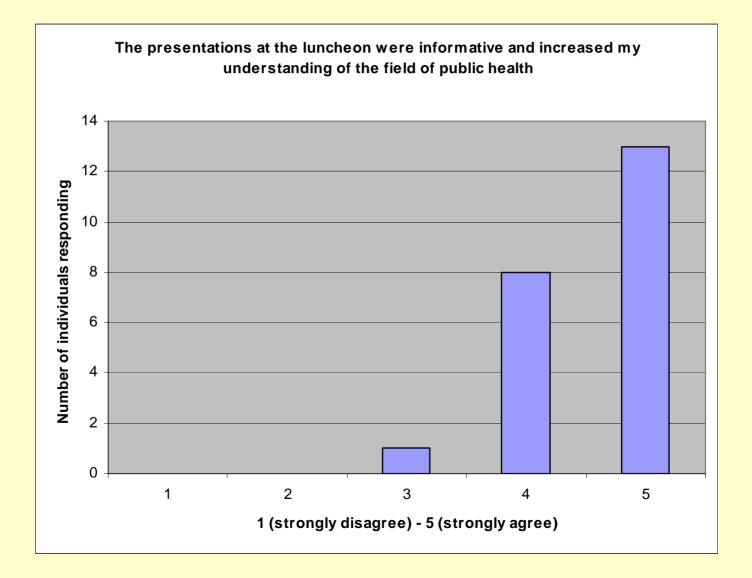


## Post-Conference Evaluation (3-5 months later)

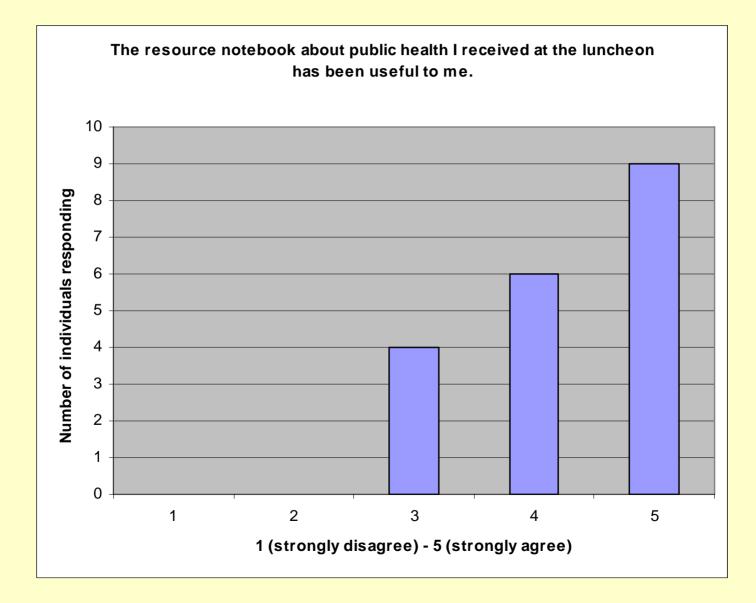
# Who Completed the Post-Conference Survey?



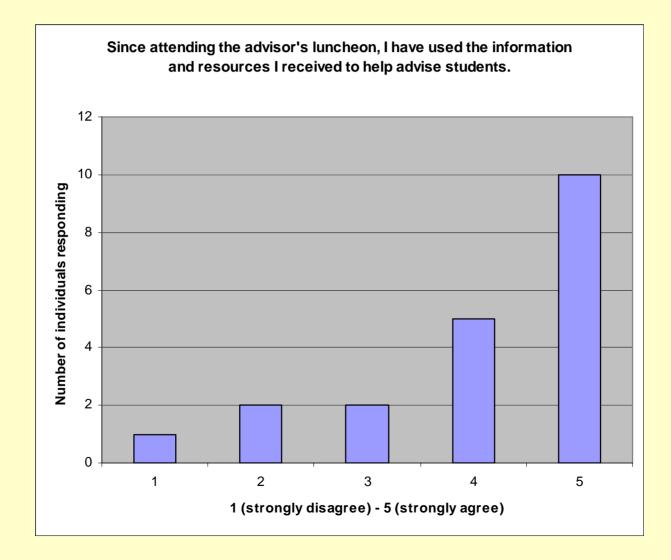
#### **Effectiveness of Luncheon Presentations**



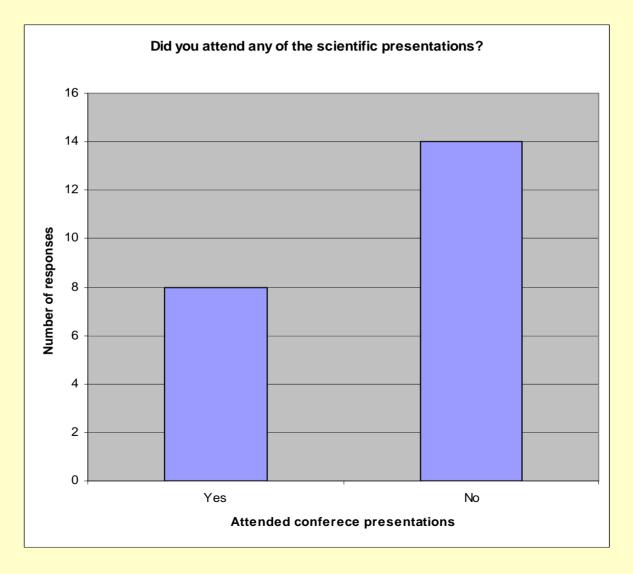
#### **Usefulness of Resource Notebook**



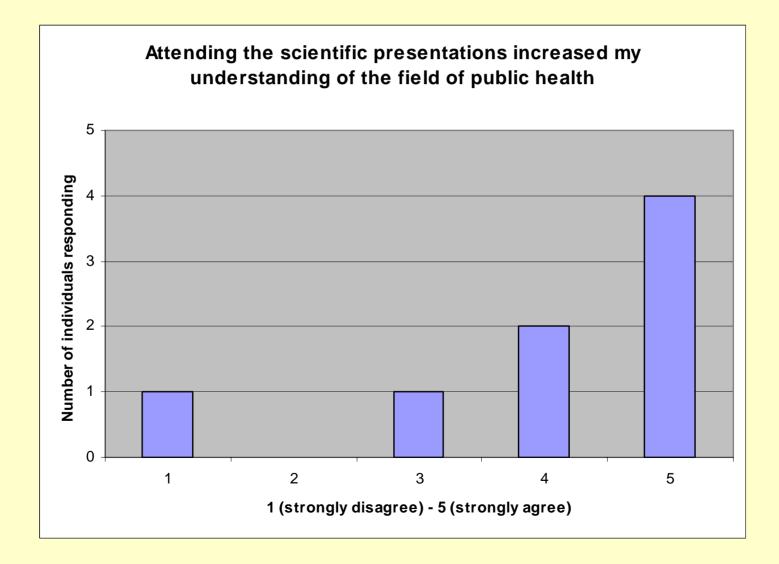
# Usefulness of Information and Resources for Advising Students



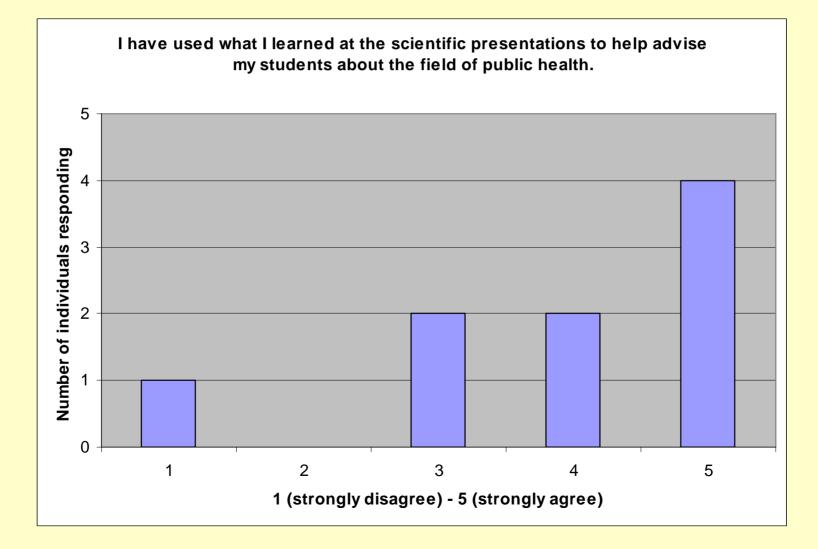
#### **Attendance at Scientific Presentations**



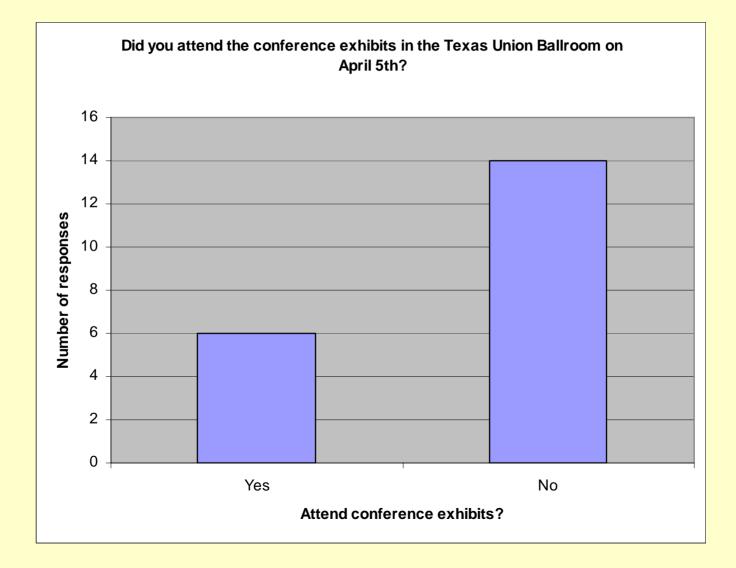
#### **Usefulness of Scientific Presentations**



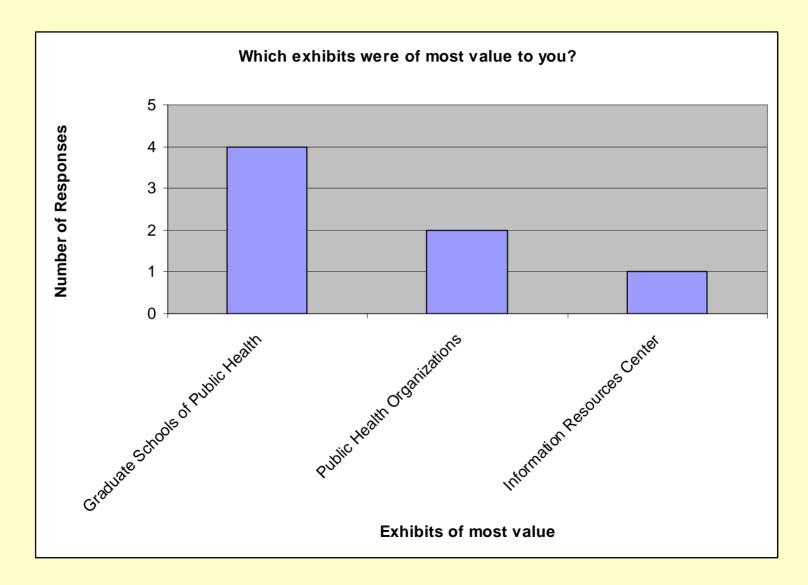
# Usefulness of new knowledge to advise students



### Attendance at Exhibits



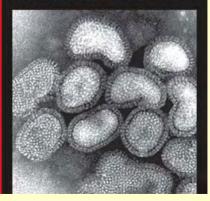
#### **Exhibits of Most Value**



#### Scientific Conference, April 5<sup>th</sup>, 2006

**BECOME A** DISEASE DETECTIVE Discover **Public Health!** 





## Designed for students, faculty, and advisors to ....

Hear scientific presentations

 Network with speakers and public health professionals

 Attend exhibits to learn more about graduate schools and other public health programs







#### Conference theme

 Chosen to appeal to university and high school students who are keenly interested in learning more about disease outbreaks and Level 4 viruses









BECOME A DISEASE DETECTIVE

> BECOME A DISEASE DETECTIVE

Discover Public Health!



BECOME A DISEASE DETECTIVE Discover Public Health!





Don't Miss This Exciting Conference! Free Lunch! Free Books! Free Pizza! It's All Free!

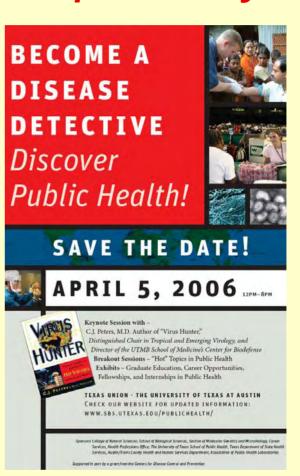
www.sbs.utexas.edu/publichealth/



#### **APRIL 5 TEXAS UNION · 12PM-8PM** 2006 THE UNIVERSITY OF TEXAS AT AUSTIN

### Conference Advertising: Multiple Times in Multiple Ways!

- Posters
- Multiple e-mails to 8000 students in CNS
- Announcements by:
  - Student Organizations
  - Teaching Faculty in their classes
    - Flyers and Powerpoint slides!
- Conference website



#### BECOME A DISEASE DETECTIVE Discover Public Health!





#### DON'T MISS THIS EXCITING CONFERENCE!

#### 12 - 8 PM @ THE TEXAS UNION <u>IT'S ALL FREE!!</u>

www.sbs.utexas.edu/publichealth/

#### **SCHEDULE OF EVENTS**

**12 PM** – Kick Off Luncheon: *"The Fantastic Field of Public Health"* 

**1- 4 PM** – Twelve (12!) exciting presentations about "*Hot Topics*" in Public Health!

5 pm – <u>Keynote Session</u> C.J. Peters, M.D., famous disease detective and author of "<u>Virus Hunter</u>"

7 pm – \*Doctors Without Borders\*

**Exhibits:** Graduate Education,

(1-8 pm) Career Opportunities, Fellowships and Internships

### The Power of Student Volunteers!!



#### **125+ Student Volunteers!**



# Last minute advertising!

#### SANDWICH BOARDS!



### 12 pm Kick Off Luncheon: The Fantastic Field of Public Health!







### 1-4 pm: Scientific Presentations





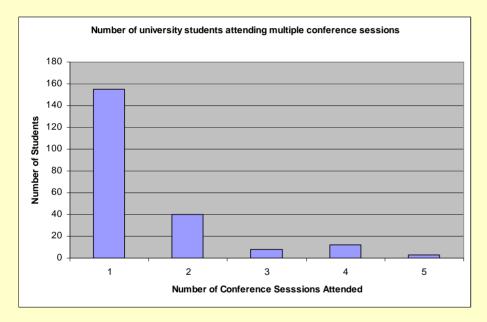




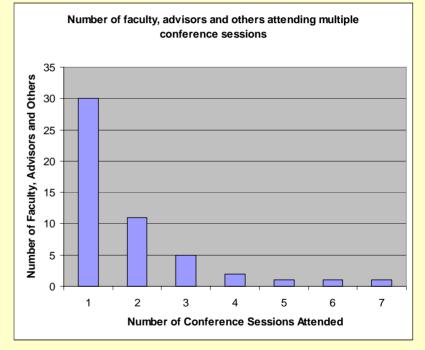
# Twelve presentations by public health professionals!

- Public Health Austin!
- Become A Disease Detective: Discover Laboratory Science!
- Outbreak I: Epidemiologists: Outbreaks are our Business
- Beating Back the Devil! The CDC Epidemic Intelligence Service
- The Monster at our Shores: Quarantine and the Emerging Pandemic

# Attendance at multiple conference sessions



**Students** 



#### Faculty, Advisors and others

BECOME A DISEASE DETECTIVE Discover Public Health!

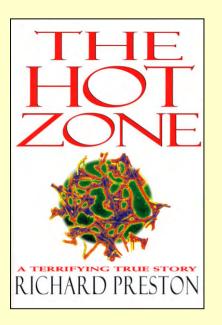


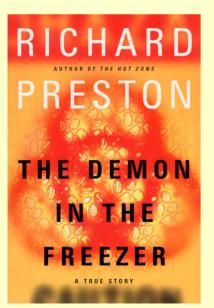
TEXAS UNION · 12PM-8PM THE UNIVERSITY OF TEXAS AT AUSTIN

Don't Miss This Exciting Conference! Free Lunch! Free Books! Free Pizza! It's All Free!

www.sbs.utexas.edu/publichealth/

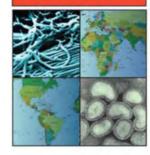




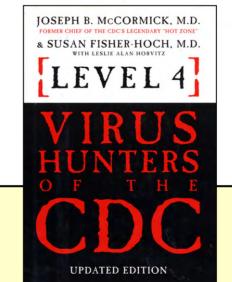


## **FREE BOOKS!**

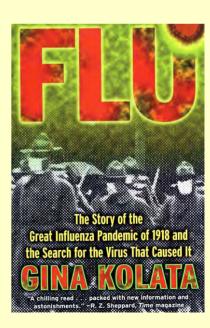
BECOME A DISEASE DETECTIVE Discover Public Health!



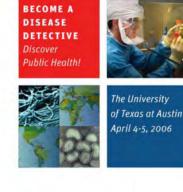
The University of Texas at Austin April 4-5, 2006







#### 300 books were given away at the exhibits...



#### REDEEM YOUR BOOK PLATE HERE



### 1-8 pm: Exhibits



# **Resource Center**



## **Resource Center**









### **Reading Lists**



Explore the Topics of Public Health

Abraham, T. (2005). RC 776 S27 A27 2005 Life Science Library <u>Twenty-first century plague : the story of SARS</u>. Baltimore, Md.: Johns Hopkins University Press.

Alibek, K., & Handelman, S. (1999). UG 447.8 A45 1999 Engineering Library Biohazard : the chilling true story of the largest covert biological weapons program in the world, told from the inside by the man who ran it (1st ed.). New York: Random House.

Aschengrau, A., & Seage, G. R. (2003). RA 651 A83 2003 Life Science Library Essentials of epidemiology in public health. Sudbury, Mass.: Jones and Bartlett.

Barker, R. (1997). RA 1242 M34 B37 1997 PCL Stacks And the waters turned to blood : the ultimate biological threat. New York, NY: Simon & Schuster.

Barry, J. M. (2004). RC 150.4 B37 2004 Life Science Library, PCL Stacks The great influenza : the epic story of the deadliest plague in history. New York: Viking.

Bartholomew, L. K. (2001). RA 427.8 I58 2000 PCL Stacks <u>Intervention mapping : designing theory -- and evidence-based health promotion programs</u>. Mountain View, Calif.: Mayfield Pub. Co.

Bartholomew, L. K. (2006). on order for PCL <u>Planning health promotion programs : an intervention mapping approach</u> (1st ed.). San Francisco: Jossey-Bass

Bazin, H. (2000). RA 644 S6 B39 2000 Life Science Library The eradication of smallpox : Edward Jenner and the first and only eradication of a human infectious disease. San Diego: Academic Press.

Blumberg, B. S. (2002). QR 201 H46 B58 2002 Life Science Library, PCL Stacks Hepatitis B : the hunt for a killer virus. Princeton, N.J.: Princeton University Press.

Brownell, K. D., & Horgen, K. B. (2004). RA 645 O23 B76 2004 Life Science Library Food fight : the inside story of the food industry, America's obesity crisis, and what we can do about it. Chicago: Contemporary Books.

Casadevall, A., & Perfect, J. R. (1998). RC 186 T7 C37 1998 Life Science Library <u>Cryptococcus neoformans</u>. Washington, D.C.: ASM Press.

Cirillo, V. J. (2004). E 731 C57 2004 PCL Stacks <u>Bullets and bacilli : the Spanish-American War and military medicine</u>. New Brunswick, N.J.: Rutgers University Press.



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Adventures in Public Health
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- Barbash, T. (2002). The last good chance (1st ed.). New York: Picador USA.
- Jack Lambeau has returned to his hometown of Lakeland, New York to manage the port's reinvention. He ignores the toxic waste barrels being illegally dumped on area farms by Lakeland's mayor. His big break, however, might come at the cost of the town's prosperity. Berman, D. A. (2005). <u>Mount doomsday : A novel</u>. Boone, NC: High Country Publishers.
- Burnan, D. A. (2007). "Monit nonsmark Private: Joint, Next Tight Could be and the sense of th

Ecothiller about the struggle between environmental and corporate control over freshwater, an essential and increasingly endangered resource.

- Camus, A., Gilbert, S., & tr. (1948). <u>The plague ([1st American ]. ed.)</u>. New York: A.A. Knopf. Chaos prevails when the bubonic plague strikes the Algerian coastal city of Oran.
- Case, J. (1998). <u>The first horseman</u> (1st ed.): Fawcett Columbine. An outbreak of Spanish flu in North Korea raises fears the virus is being tested as a weapon by the military. Early this century the flu killed millions and the U.S. races to find an antidote, seekine the
- military. Early this century the flu killed millions and the U.S. races to find an antidote, seeking the virus in corpses which were buried in permafrost. Cook, R. (1993). <u>Fatal cure</u>. New York: Putnam.
- Recent medical school graduates David and Angela Wilson move to rural Vermont. David's confidence is soon shaken as his patients begin dying from a mysterious illness. A gruesome discovery puts the lives of the Wilsons and their patients in danger.
- Cook, R. (1998). <u>Toxin</u>, New York: Putnam. Cook cooks up another medical thriller, with a bunch of E.coli bacteria as villain, an underdone hamburger as murder weapon, and a little boy as victim. His doctor-father soon discovers that something far more sinister than bad hygiene is the cause.
- Goldberg, M. (2005). <u>Wickett's remedy : A novel</u> (1st ed.). New York: Doubleday. When Spanish influenza hits Boston in the early 20th century, Lydia, an Irish American shopgirl finds herself working as a nurse in an experimental ward dedicated to understanding the raging epidemic, through the use of human subjects.
- Herch, D. (2001). <u>The name effect : A novel</u> (1st 6a). Crown runnishers. The Genesis Project is researching a fascinating thesis: that violence is a virus and that evil is genetically based. A billionaire agrees to underwrite their project, which starts with brain scans of death row inmates and progresses to war zones and killing fields all over the world.
- Ludlum, R., & Lynds, G. (2000). <u>Hades factor</u>. New York: St. Martin's Griffin. After three disparate Americans succumb to an unknown Ebola-like virus, the U.S. Army Medical Research Institute for Infectious Diseases (USAMRID) is pressed into service.

DISEASE DETECTIVE Discover Public Health!



Public Health at the Movies

Absolon. (2003)

BECOME A

- In the near future, a virus has infected everyone on the planet, and Absolon is a drug that everyone must take to stay alive. One corporation controls the drug. A scientist who was researching the virus is found murdered, and Norman Scott is the policeman who investigates the crime. Soon Norman realizes that he's in over his head, as hit men are gunning for him.
- And the Band Played On. (1993)
- Story of the discovery of the AIDS virus. From the early days in 1978 when numerous San Francisco gays began dying from unknown causes, to the identification of the HIV virus.
- The Andromeda Strain. (1981)
- A deadly micro-organism enters Earth's atmosphere with a returning satellite, and a team of medical specialist must discover h ow to battle it before time runs out.
- Cassandra Crossing . (1977)
- "Outbreak" meets "The Runaway Train" as a motley group of passengers are quarantined on a train destined to prevent the spread of the disease at the cost of their lives. Government intrigue, international smuggling, and the legend of the Cassandra Crossing add to the suspense.

#### Coma. (1997)

A young doctor at a Boston hospital becomes suspicious when healthy young people undergoing routine operations are mysteriously slipping into irreversible comas.

#### Contagious. (1997)

An epidemiologist has to cope with a cholera outbreak, track down a drug dealer who is a carrier, track down all the people he has come into contact with and deal with hundreds of patients. Then it gets personal. She discovers her husband and step-children are lost in the woods and her husband is infected with cholera. She begins a race against time to track them down while buttling against her own demons and lack of sleep. In the end her step-children trach her with a new found respect.

#### Erin Brockovich. (2000)

Erin Brockovich is an unemployed single mother who works as a file clerk for a lawyer. While no one takes her seriouxly, with her trasky clothes and early manners, that son changes when she begins to investigate a suspicious case involving the Pacific Gas & Electric Company. She discovers that the company is trying to buy land contaminated by toxic heavalent chronium waste that the company is illegally dumping. Erin finds herself leading point in a series of events that involve her lawfirm in one of the biggest class action lawsuits in American bistory.

#### The Insider. (1999)

This film tells the true story of Jeffrey Wigand, a former tobacco executive, who revealed to CBS-TV News show "60 Minutes." that the tobacco industry was not only aware that cigarettes are addictive & harmful, but deliberately worked on increasing that addictiveness. He and producer Lowell Bergman learn the hard way that simply telling the truth is not enough as they struggle against both Big Tobacco's attempts to silence them and the CBS TV Network's own cowardly complict preference of putting money as a higher priority over the truth.

#### Exhibits: Graduate Schools of Public Health









### **Public Health Organizations**









### **Public Health Organizations**





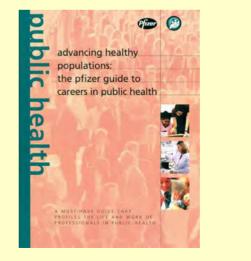


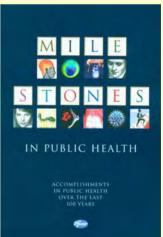












1000 books donated by Pfizer, Inc.

#### **UT** Austin Programs



#### UT Austin Public Health Internship Program







## 5 pm: Keynote Session











Keynote presentations Eduardo Sanchez: Discover Public Health! C.J. Peters: Hemorrhagic Fevers: Collaborating to Combat Killer Viruses in Africa

## 6:15 pm: Free Pizza!



## 7 pm: Doctors Without Borders



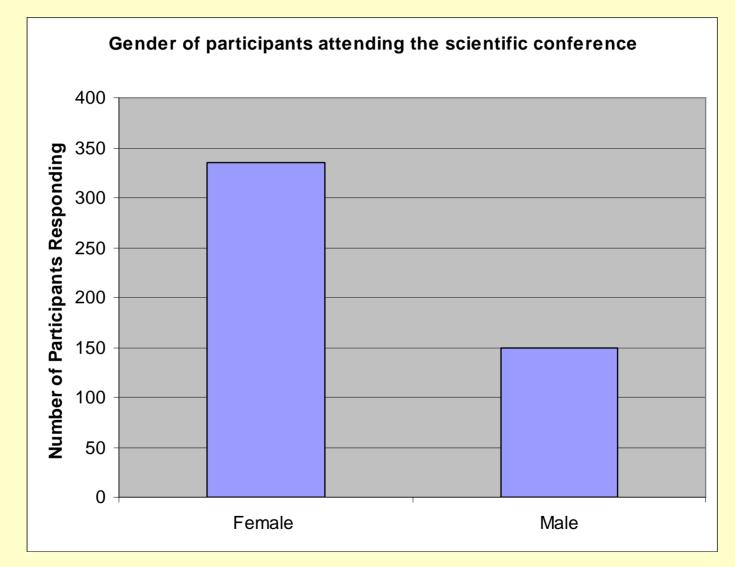
Fady Joudah: Humanitarian Crisis in Sudan: A Doctor Without Borders

## **Scientific Conference Evaluations**

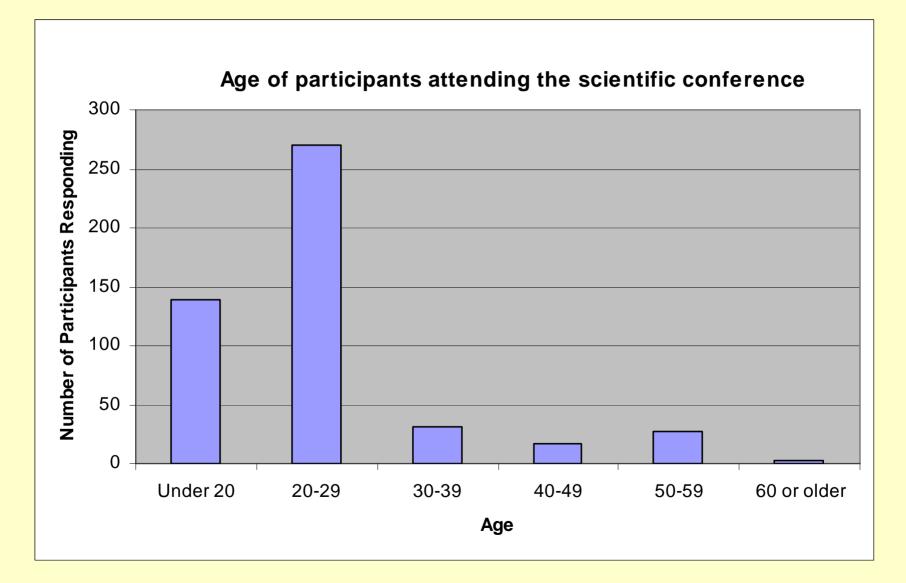


All Conference Participants (CDC Evaluation Instrument)

#### Gender



Age



## Type of Institution

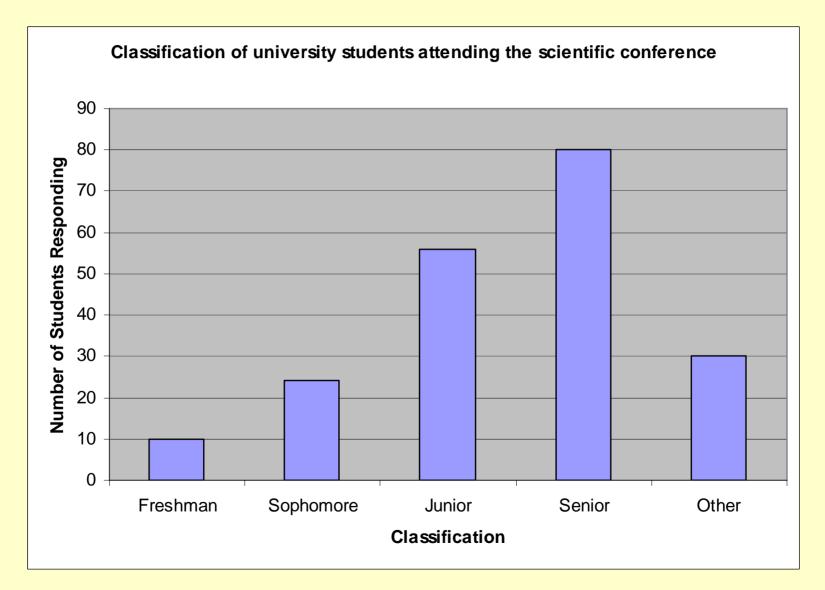
Institution	No.(%) of participants responding	
State Health Dept.	33 (6.9%)	
Local Health Dept.	13 (2.7%)	
Hospital or Community Health Clinic	25 (5.2%)	
College or University	331 (69%)	
High School	42 (8.7%)	
Other	35 (7.3%)	
Total	479 (100%)	

## Race/Ethnicity

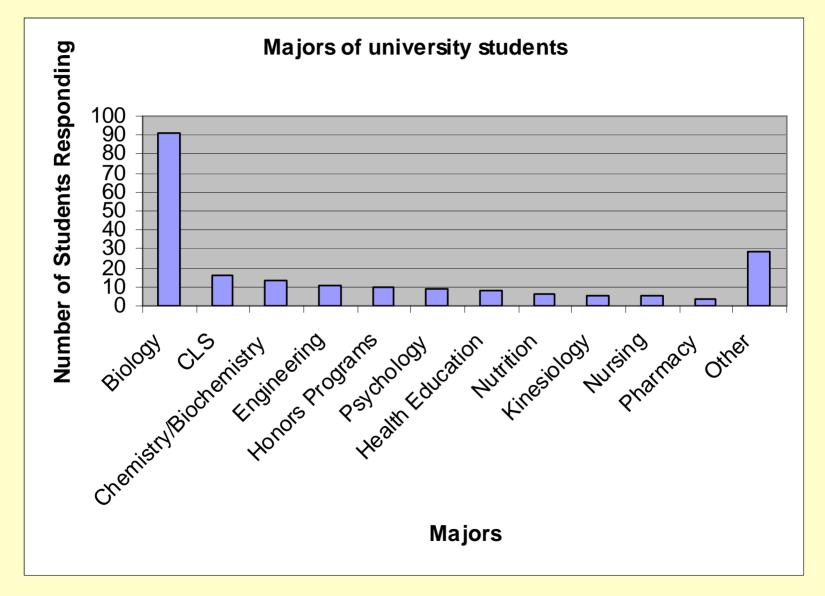
Race/Ethnicity	Conference Attendees (n = 465)	UT Austin Students (2006)
White	33.3%	56.6%
Hispanic	30%	15%
African-American	19.1%	3.9%
Asian-American	5.7%	14.4%
Foreign	NA	8.9%
Unknown	NA	0.7%

# Supplemental Evaluations: University Students

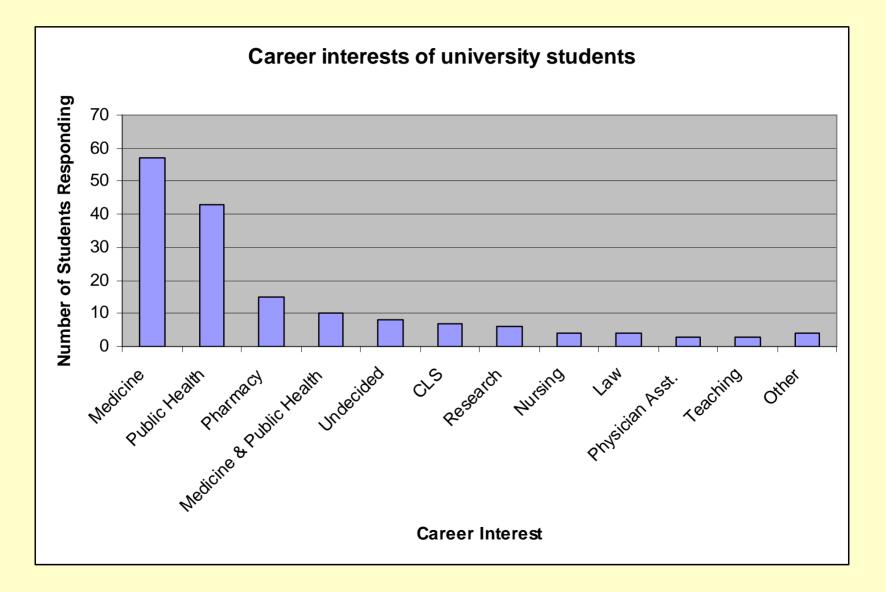
### Classification



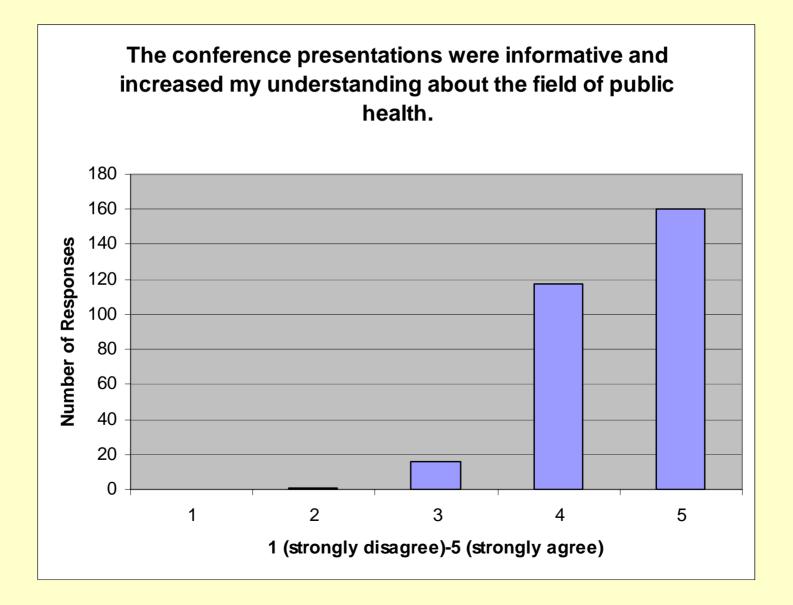
#### Majors (free responses)



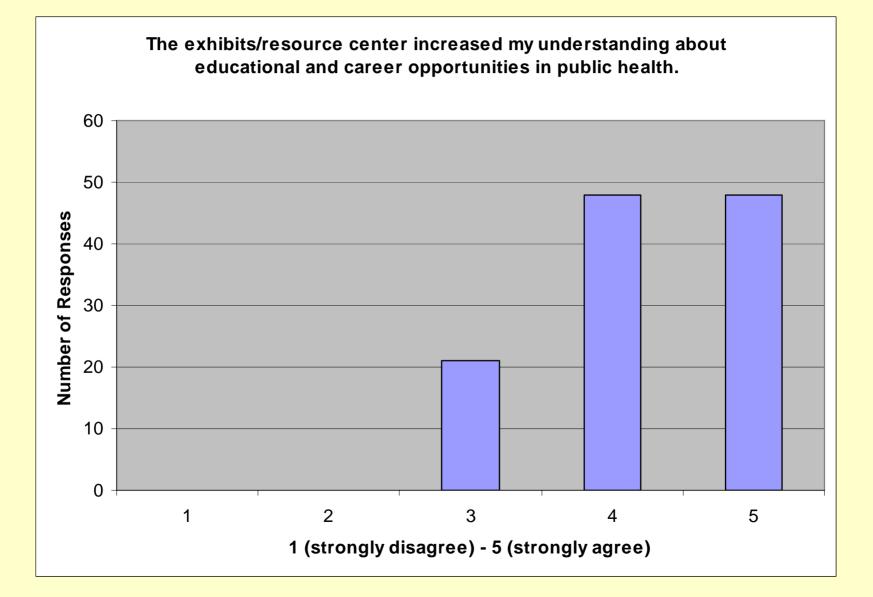
#### Career Interests (free responses)



#### **Evaluation of Conference Presentations**

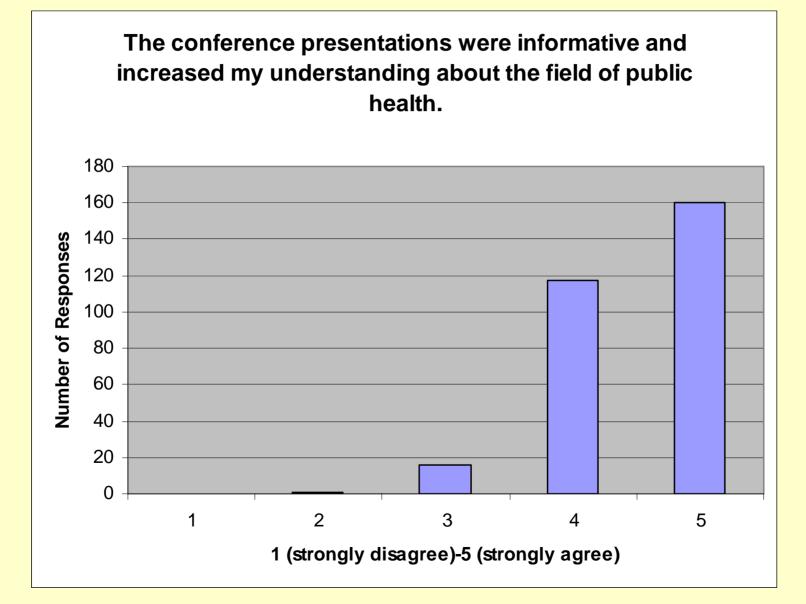


#### **Evaluation of Conference Exhibits**

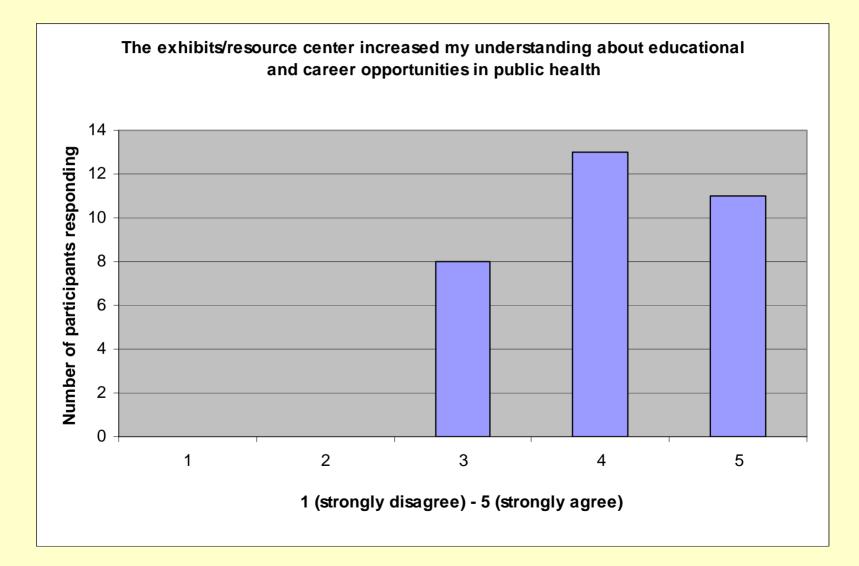


Supplemental Evaluations: Faculty, Advisors and Others

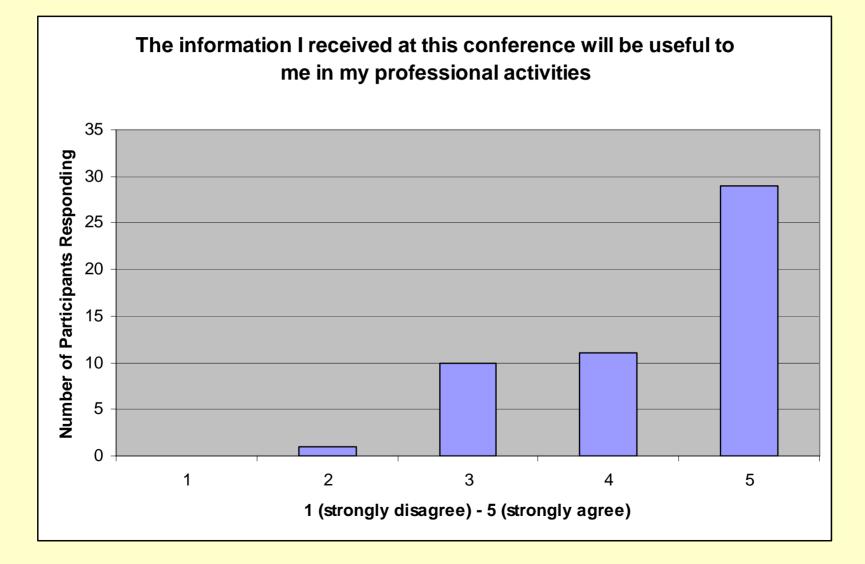
#### **Evaluation of Conference Presentations**



#### **Evaluation of Conference Exhibits**



#### **Usefulness of Information**



## **Conference Impact**



#### The Disease Detective conference...

- Gave several hundred university and high school students the opportunity to hear scientific presentations and to engage in discussions with public health professionals about their activities functions and careers.
- This has increased the interest of UT Austin students in public health careers!



- Gave hundreds of students the chance to meet and interact one-on-one with representatives from 8 schools of public health, ASPH, APHL and other public health organizations to learn about the graduate education, fellowships and careers in public health.
- This is an effective way to develop the future pipeline of public health professionals!

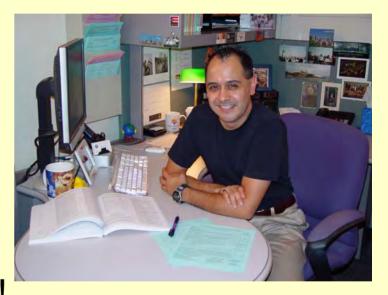


 Taught students how to access information about public health for themselves at the conference Resource Center.





- Effectively educated UT Austin faculty, academic advisors and career counselors about the field of public health and gave them the opportunities to network with public health professionals.
- These individuals now have new knowledge and resources with which to advise thousands of UT Austin students about public health careers!



- Served as a continuing education activity for local and state public health professionals and community health professionals, facilitating their professional development.
- Reinforced partnerships among participating entities including the UT SPH, TDSHS, ATCHHSD, CDC and faculty at UT Austin.



 The Public Health Advisory Group and **APHL** views this conference as a model for a strategy that can be employed to build a "pipeline" of future public health laboratory professionals. APHL is actively facilitating the replication of this conference at other universities across the nation.

Because of the interest and enthusiasm for public health demonstrated through this conference, all partners involved have indicated their interest and willingness to continue this outreach activity in the future!



BECOME A DISEASE DETECTIVE Discover Public Health!





## **Questions?**

