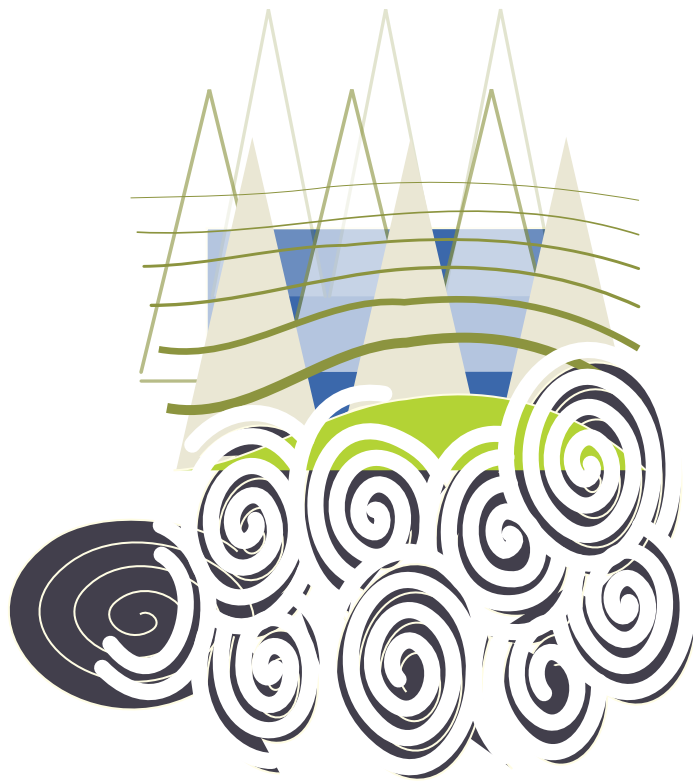




THE NORTH CAROLINA INSTITUTE FOR PUBLIC HEALTH

# *2009 Annual Report*



**UNC**  
GILLINGS SCHOOL OF  
GLOBAL PUBLIC HEALTH

### Preparing for all-hazards

The NC Center for Public Health Preparedness began in 2000 with the Institute and the School's Department of Epidemiology to conduct preparedness-related research projects with health departments.

The 2001 attack on the World Trade Center in New York City and the subsequent anthrax mail contamination highlighted the need for preparedness training for the public health workforce.

According to Center Director Dr. Pia MacDonald, "While 9/11 was a defining moment in so many ways, the preparedness center was already in existence and North Carolina was heavily involved in public health preparedness and response with a lot of practice around hurricanes. Over the years, our focus has shifted more towards training the public health workforce around preparedness topics, technical assistance for emerging public health issues, and practice-based epidemiologic research."



### Linking academia and practice

In 2000 the Institute and faculty from the School of Public Health created the Certificate in Core Public Health Concepts, an online program-for-credit particularly suited to working professionals. Over 650 students have enrolled in the core certificate program, and 25% have continued their graduate studies.

NCIPH has also linked academia and practice with two books: *Public Health Business Planning*, based on the Management Academy for Public Health curriculum, and *Managing the Public Health Enterprise*, inspirational and instructional vignettes for managers.



### Attention to health promotion and prevention

Active Living By Design will be working with 16-32 North Carolina communities to increase healthy eating and active lifestyles for kids and families with an emphasis on vulnerable populations and those with the greatest risk for obesity.

### Improving public health systems

Several Institute programs will be involved in researching public health systems, evaluating their efficiency and making recommendations for greater effectiveness in the future.

### More quality workforce training

The need for continuing education, including executive training experiences and academic certificates, will grow with retiring public health professionals and greater succession planning for those aspiring to leadership roles in public health. The Institute will continue to ask, "What skill-training is needed?" to determine what educational opportunities to offer.



## Highlights from the Institute's 10th Year: 2008-2009

### Healthy Kids, Healthy Communities grantees announced



Active Living By Design (ALBD), working with the Robert Wood Johnson Foundation, began its five-year, \$4.6-million Healthy Kids, Healthy Communities initiative. ALBD began selecting grantees who focus on systems, policies and environmental strategies to support healthy eating and active living, especially among children who are at the highest risk of obesity.

### NC wells law prompts new course

The Office of Continuing Education, working with the Environmental Health State of Practice Committee, responded to the state's new law requiring local health departments to site, permit, and inspect new private drinking-water wells. Over 300 environmental health specialists completed the new course and earned state certification.

### Team Epi-Aid gets high marks in five-year evaluation

Fifty-one activities of Team Epi-Aid, a cadre of UNC students trained by the NC Center for Public Health Preparedness and representing 3,315 hours of service to the state, resulted in a 98% approval rating by both participants and the local health departments served. Team Epi-Aid provides surge capacity for outbreak investigations, community health assessments, and emergency preparedness and response events.

### New online products released



In response to restricted travel and training budgets, the Office of Continuing Education created new online educational courses: Pediatric Nutrition and STD Nurse Clinician Training. Modules combine self-paced individual study and online group discussions.

### NC Preparedness and Emergency Response Research Center (NC PERRC) launched

Evaluation and Improvement of North Carolina's emergency readiness is the charge of the new NC PERRC. The Centers for Disease Control and Prevention awarded an \$8.5-million grant to study surveillance systems, regional response, the NC Health Alert Network, and the relationship of accreditation and public health preparedness, under the direction of the NC Center for Public Health Preparedness.

## Consultation Projects FY 2008-2009

### NCIPH Consulting and Technical Assistance Activities

CLIENT	TYPE OF ENGAGEMENT	BRIEF DESCRIPTION OF ENGAGEMENTS
Iredell County Health Department (IChD)	Strategic Planning	Assist IChD in the design and execution of a strategic planning process, including an environmental scan, organizational assessment, and identification of possible strategic initiatives
Stanly County Health Department (SCHD)	Strategic Planning	Design and facilitate planning sessions
Chronic Disease and Injury Section, NC DPH	Organizational Design	Work with section staff to draft a vision and work plan to better integrate complimentary services
New Hanover County Health Department (NHCHD)	Strategic Planning	Assist NHCHD in the design and execution of a strategic planning process, including an environmental scan, organizational assessment, and identification of possible strategic initiatives; draft the health department planning document
Davidson County Health Department	Strategic Planning	Design and facilitate planning sessions
Northwest Partnership for Public Health	Grant Writing	Develop planning proposal to design a comprehensive diabetes intervention for the NW local health departments
Northeast NC Partnership for Public Health	Project Coordination	Coordinate roll-out/training to automate environmental health data collection
Central Partnership for Public Health	Project Coordination	Develop and distribute public health career planning materials and website
Central Partnership for Public Health	Project Coordination	Coordinate and facilitate "practice-based research" focus groups and analysis
South Central Partnership for Public Health	Project Coordination	Coordinate roll-out/training to automate environmental health data collection
South Central Partnership for Public Health	Project Coordination	Design, identify, and assign resources to HPV project
South Central Partnership for Public Health	Grant Writing	Develop proposal to fund faith-based chronic disease intervention

# Get the H1N1 flu vaccine and know...

**THE FLU  
STOPS  
WITH ME**

**Under 25?** You are considered at high risk for the H1N1 flu according to the Centers for Disease Control and Prevention (CDC).

For more information on H1N1 flu and the H1N1 vaccine, visit

**flu.nc.gov**



North Carolina Department of Health and Human Services  
Division of Public Health  
www.ncdhhs.gov • www.ncpublichealth.com

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copies of this public document were printed at a cost of \$ \_\_\_\_ or \$ \_\_\_\_ each. 10/10



# Maternal & Public Health Child Health | Leadership Institute

Leadership today for improving Maternal and Child Health tomorrow

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

Maternal & Child Health banner and poster

## MCH-PHLI is for mid-to-senior level professionals who want to lead change for MCH in the 21st Century.



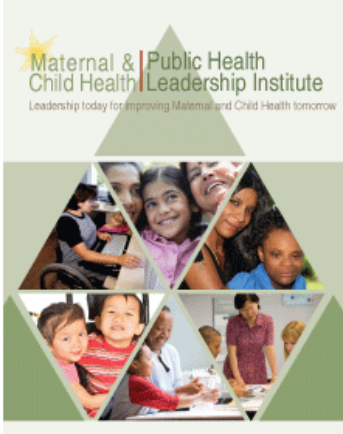
This executive-education program is designed to significantly expand self-awareness and quickly build practical skills for effectively leading, managing people, and building partnerships for the MCH systems of tomorrow.

Three onsite retreats provide a total of 10-days of experiential-based training. A robust distance-based program extends learning and allows Fellows to customize their experience. Each Fellow gets ongoing, private, executive coaching to help personalize and maximize their leadership learning.



*"This experience has taught me to think much more intentionally about management and leadership issues, and has helped me bring my work to a higher level. Personally, I have also grown an emotional deeper understanding and insight of myself."*

*"The MCH-PHLI is of very high quality and extremely well organized. It is different from many opportunities that we are presented with as it offers a comprehensive focus on leadership - how to be a more effective administrator, advocate and leader. I would strongly recommend this program to other family leaders who have been doing this work for a while and wish to focus their development on improving skills in administration, project management, communication and presentation skills, advocacy, system development, program planning and evaluation and understanding how to lead change."*



SUPPORTED FROM A GRANT BY HRSA/MCHB AND PARTNERSHIPS WITH:

AMCHP | UNC | FAMILY VOICES | MCHB

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

*"What I'd been an incredible experience. You get to meet and know others like yourself from other states and share experiences, and learn from each other. The speakers have been fabulous, very engaging. I have been doing this type of work for a long time and I am still growing, and learning thanks to MCH-PHLI."*

*"The MCH-PHLI has been an incredible personal and professional growth experience. This is an opportunity for both seasoned and emerging maternal and child health public health leaders to refine leadership, management and advocacy skills in a rich learning environment. This has been a rewarding experience. I challenge other MCH Leaders to learn more about themselves and about leadership by participating in MCH-PHLI."*

- ### Topics Covered
- Be prepared to learn a lot as an MCH-PHLI Fellow. Teaching methods include simulations, didactic sessions, workshops, small group discussion, individualized coaching, and psychological instrument assessment feedback. Here is a sample of topics covered during our residential retreat sessions.
- Leadership, Personal Systems, and Change
  - The Personality-Organizational Culture Link and creating Thought Diverse Organizations
  - Human Motivation and how to inspire your team
  - Planned Personal Development
  - The 5 Conflict Styles
  - Critical Thinking
  - How to manage difficult conversations
  - USA 2050: Snapshot of the Future and how it drives our policy decisions
  - Title V 'Future-ing' Session: Challenges of history and of the future
  - The Four Political Values and What it Means for Effective Advocacy
  - Public Health Solutions through Changes in Policies, Systems, and the Built Environment Cultural Competence
  - Systems Thinking: Applications to Organizations
  - Project Management 101: Fundamentals, Follies, and Formulas for Success!

Maternal & Child Health table top display

# Maternal & Public Health Child Health | Leadership Institute

Leadership today for improving Maternal and Child Health tomorrow



MCH-PHLI is supported in full by a Project T04 MC12783 from the Maternal and Child Health Bureau (Title V, Social Security Act), Health Resources and Services Administration, Department of Health and Human Services.

AMCHP | UNC | FAMILY VOICES | MCHB

MCH-PHLI is for those who want to lead change for MCH in the 21st Century. This executive-education program is designed to significantly expand self-awareness and quickly build practical skills for effectively leading, managing people, and building partnerships for the MCH systems of tomorrow. This unique program will improve your leadership capacity and teach you how to create the kind of organizational culture that engages and motivates others.

Three intensive onsite retreats provide a total of 10-days of experiential-based training. A robust distance-based program extends learning and allows Fellows to customize their experience when back in their home environment. Participants transform their skills as well as their understanding of themselves and others. Each Fellow gets ongoing, private, executive coaching to help personalize and maximize their leadership learning.

*"This is a fantastic opportunity and I feel privileged to be part of this group"*

*"Everything was wonderful! Met all of my expectations! I can't wait until the Fall!"*

*"Amazing, amazing, amazing"*

### Program Components

The MCH-PHLI uses a robust, multi component program to help transform leadership skills. The program is divided between onsite retreats and a distance education component.

### Onsite Retreats

Three intensive leadership development retreats are held at our state-of-the-art executive education facility, The Rizzo Center, on the campus of the University of North Carolina at Chapel Hill. These 3 to 4 day programs provide opportunities for in-depth work with recognized experts, simulations, leadership assessment feedback, and network opportunities to promote maximum learning.

This program capitalizes on seven of the most respected psychological assessment instruments to lay the foundation for a deep understanding of personality structures, human motivation, change management, conflict, emotional intelligence and organizational behavior. Personalized executive coaching and expert facilitation guide each Fellow's individual development plan to foster ongoing leadership development and skill building.

### Distance Education Program

Our robust Continuous Learning System fosters further skill development when you return home. We offer 10 components that you can customize to support your development: online seminars, which provide practical skills, leadership and management tools, intimate conference calls, instructive webinars, private executive coaching, and group-based Peer Coaching, to help you implement the skills presented in the retreat sessions. This program offers myriad routes to effective leadership that you can explore in as little as two hours a week.

Maternal & Child Health brochure



# REGISTER THIS FALL Enhanced Role Nursing

With the Office of Continuing Education,  
North Carolina Institute for Public Health



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GILLINGS SCHOOL OF  
GLOBAL PUBLIC HEALTH

SAVE the DATE post card



## SAVE THE DATE

ANNOUNCING Course Dates for **Enhanced Role Nursing!**

### **Physical Assessment of Adults - Videoconference**

Fall Course: Sept 8, Sept 22, Oct 6, and Oct 19, 2010  
Spring Course: Feb 16, Mar 2, Mar 23, and April 1, 2011

### **STD Nurse Clinician Training - Online**

Fall Course: Nov 29, 2010 thru Feb 4, 2011  
Spring Course: May 2 thru June 30, 2011

"This training not only enhances our clinical skills in physical assessment, but also provides our agency with the ability to directly bill for our services to Medicaid."

Rhonda Owenby, FNP (Burke County)

- ✓ Continuing to provide rich and up to date clinical training for RNs working with adults providing annual health promotion exams
- ✓ Training that certifies nurses to perform routine annual screening physical exams and bill **MEDICAID** directly for their services
- ✓ Share this email with your office manager, nursing director/supervisor, and other RNs who may desire this valuable certification.

Objectives, agendas, and registration information available at [www.sph.unc.edu/oc](http://www.sph.unc.edu/oc) under the Enhanced Nursing Program link.

SAVE the DATE email

# THE NORTH CAROLINA INSTITUTE FOR PUBLIC HEALTH



THE SERVICE AND OUTREACH ARM OF THE



**UNC**  
GILLINGS SCHOOL OF  
GLOBAL PUBLIC HEALTH

## Who we are



The North Carolina Institute for Public Health brings public health scholarship and practice together to improve the public's health. NCIPH is first and foremost an educational resource for public health professionals, offering hundreds of courses and workshops each year, in basic competencies as well as emerging issues. It is also a consultant to health organizations and agencies. As part of the School, the Institute is committed to the public health needs of North Carolina first. As public health goes beyond geographic boundaries, NCIPH has also provided services to neighboring states, the nation, and the world.

**Serving the state  
Leading the nation**

THE NORTH CAROLINA  
Institute for Public Health

## What we do

### Educating front line public health practitioners

As more is asked of health departments, and as accreditation moves from assuring capacity to assuring quality performance, professional training and workforce development become critical needs in local health departments.



The Institute's Office of Continuing Education works with the NC Division of Public Health, the Area Health Education Centers, and Continuing Education Advisory Committees for public health nurses, social workers, and environmental health specialists to identify and deliver needed training.

**Demand for leadership is high among agencies asked to provide services to the state.**

The Institute's **Management Academy for Public Health**, **Southeast Public Health Leadership Institute**, and the **National Public Health Leadership Institute** helped graduating scholars augment their management skills and become ready to lead.

### Strengthening public health systems and services

**"Quality Improvement (QI) is not new to public health but what we measure may be to some. QI drills down and will ultimately make health departments more efficient and effective to improve the public's health."**

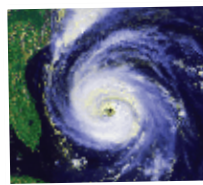
Mary Davis,  
Evaluation Services

The Institute, at the service of the state accreditation board, helps prepare local health departments for the accreditation process, orchestrates site visits, evaluation, and awards. Through 2008, 44 health departments have been accredited in North Carolina.



While accreditation assures a certain capacity for basic services within each health department, quality improvement (QI) helps identify areas to improve costs, services, and outcomes. The Institute has been involved in several QI initiatives.

### Exploring emerging issues in public health



In October 2008 the Institute launched the **North Carolina Preparedness and Emergency Response Research Center (NCPERRC)**. It is one of seven centers at schools of public health funded by the Centers for Disease Control and Prevention (CDC) to strengthen and improve public health preparedness capacity through systems and services research.

Studies will evaluate disease surveillance and reporting systems, emergency alerting systems, regional response systems, and the effects of health department accreditation on preparedness and response capacities.

NCPERRC will create synergy with the Institute's **UNC Center for Public Health Preparedness** which has been developing training programs to address public health threats since 2002.

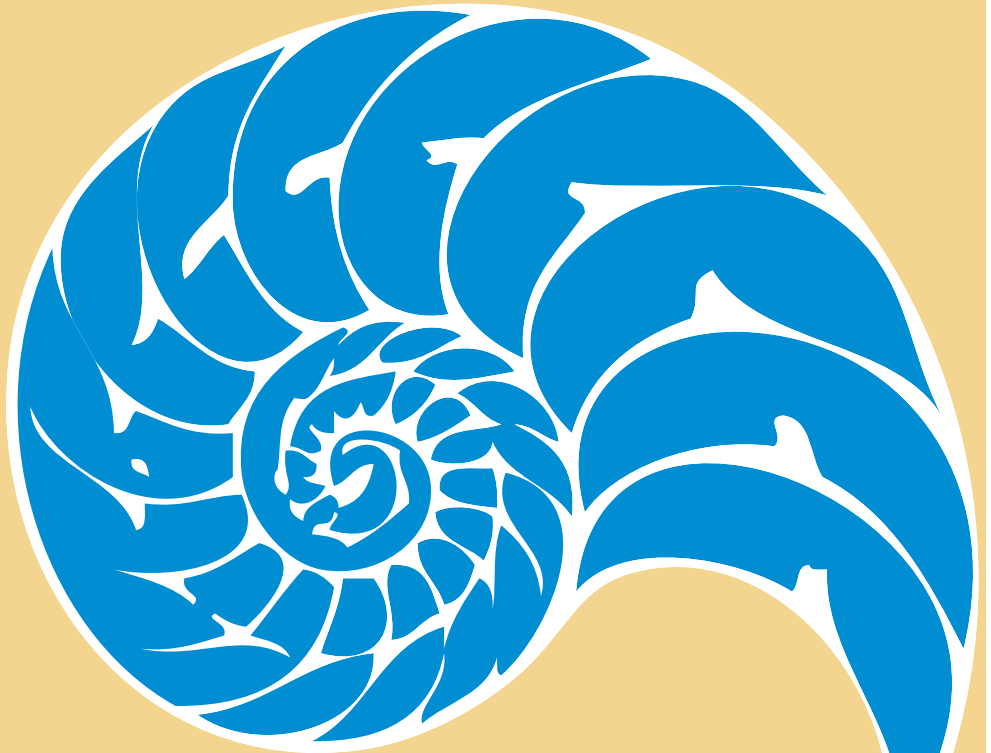
### Fighting the obesity epidemic

Ask any local public health director what their community health priorities are, and addressing obesity and its ill effects is always on the list. The Institute's **Active Living By Design (ALBD)** creates community-led change by working with local and national partners to build a culture of active living and healthy eating.



### Healthy Kids, Healthy Communities

In 2008 ALBD launched **Healthy Kids, Healthy Communities**, a five-year partnership with the Robert Wood Johnson Foundation that will help vulnerable communities across the nation reverse the childhood obesity trend through changes in systems, policies and environments.



# THE NORTH CAROLINA INSTITUTE FOR PUBLIC HEALTH 2010 Annual Report



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### New ways to educate the public health workforce

The North Carolina Institute for Public Health considers training and workforce development one of its key missions. This year continued the trend of restrictive travel and training budgets in public health departments and agencies. In response, the Institute's Office of Continuing Education (OCE) developed new distance learning options for child health, pediatric nutrition, adult physical assessment, and STD training programs.

*The webinars were intense, but Tavia (the instructor) worked very hard to make sure she was available for questions and she was quick to provide feedback and resources.*  
—Child Health course participant

In past years, OCE's popular Management and Supervision course was open only to nurses and lasted three weeks. In an effort to serve more public health professionals, OCE opened the course to all disciplines and trimmed it to a two-week session. Said one of this year's participants, "I hope that this training... will continue to provide access to knowledgeable professionals who are willing to share their expertise and make us all better health providers."

The Institute's executive education staff also adapted to the times by adding six webinars to the Management Academy curriculum and even taking core business planning instruction to teams in Florida.

### Much to be proud of...



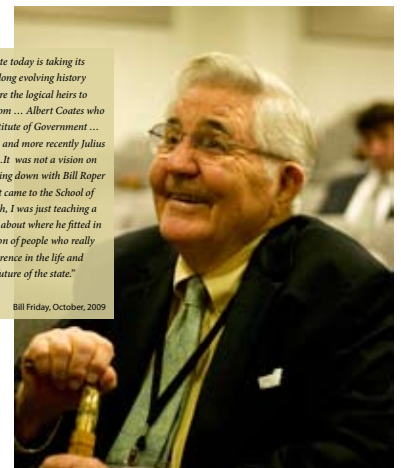
Certainly one of the highlights of 2010 was the celebration of our official 10th year.

Former UNC president Bill Friday joined Dean Barbara Rimer and former Dean William Roper for a special anniversary program at the UNC Gillings School of Global Public Health. Friday is a major proponent of the University's role in service to the state and was instrumental in the formation of the Institute.

It was especially gratifying for the Institute to be awarded the Partners in Public Health Distinguished Group Award by the North Carolina Public Health Association at its annual conference (above). The award recognized the Institute's "significant contribution in providing leadership and support of public health," including continuing education and training, participation in health department accreditation, and support to the association and the NC Division of Public Health.

*"This Institute today is taking its place in the long evolving history here. You are the logical heirs to Howard Odum ... Albert Coates who built the Institute of Government ... Paul Green, and more recently Julius Chambers... It was not a vision on my part, sitting down with Bill Roper when he first came to the School of Public Health, I was just teaching a little history about where he fitted in this succession of people who really made a difference in the life and health and future of the state."*

Bill Friday, October, 2009



Chatham Community for Alcohol and Drug Free Youth



**chathamdrugfree.org**



A county-wide coalition to help prevent and reduce underage drinking, tobacco and drug use among youth

Chatham Drug Free bookmark and graphic identity

# Safe Store

**UNDER 21?**



**We do not sell alcohol to minors**

Supported by the Chatham Community for Alcohol and Drug Free Youth

Chatham Drug Free Safe Store graphic identity

Students who hear about the dangers of alcohol and other drugs from parents and caregivers are up to **50% less likely to use.**

Research over the last two decades has proven that drug and alcohol addiction is both preventable and treatable. Visit **chathamdrugfree.org** to find out more!



## CDF Initiatives

- Safe Homes
- Safe Stores
- Pact360
- Prescription Drug Take Back
- Project Graduation
- Youth Leadership
- Safe And Sober Prom
- Fatal Vision Drugged Driving

Chatham Drug Free bookmark

**Chatham Community for Alcohol and Drug Free Youth**



**chathamdrugfree.org**

Chatham Drug Free Safe Homes graphic identity

# Impact

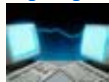
THE NORTH CAROLINA INSTITUTE FOR PUBLIC HEALTH  
A Quarterly Newsletter • December 2006

## Impact

THE NORTH CAROLINA INSTITUTE FOR PUBLIC HEALTH  
A Quarterly Newsletter

June 2010

### High tech options to impact public health



With the provision of unprecedented funding to automate healthcare in the United States through the ARRA HITECH Act, the adoption of electronic health records (EHR) and the exchange of digital patient information has grown and will be growing dramatically over the next decade. Automation is expected to improve the quality of care and to play a central role in "bending the healthcare cost curve." [More...](#)

### Public Health Business Planning on the Road



Five county-based teams in Florida started revenue-generating public health business plans this month, with help from the Institute. St. Lucie, Orange, Seminole, Brevard, and Osceola counties will develop their business plans based on public health needs from their community health assessment work, using the template from *Public Health Business Planning: A Practical Guide*. [More...](#)



### An early look at Healthy North Carolina 2020

While the specific objectives will not be officially released until later this year, the Healthy North Carolina 2020 Steering Committee has been reaching out to involve local health departments, community leaders, health organizations, and public health experts to create a ten-year action campaign for "A better state of health". [More...](#)

### Network delves into practice-based research

The North Carolina Public Health Practice-Based Research Network (NC PBRN) is designed to stimulate and support new research based on the work of nine local health departments of the Central North Carolina Partnership for Public Health, part of a state incubator initiative that fosters regional collaboration. The network allows the health departments and their research partners to study public health system issues important to improving public health. [More...](#)

### From the director

Since joining the North Carolina Institute for Public Health in 2003, I have been consistently impressed by the dedication of the Institute's extraordinary staff. Whether they are involved in training public health workers across North Carolina, managing programs that promote and protect health, or executing a range of support functions that are essential to the Institute's success, I have found and a true

No one in extraordinary more than Beaver, v. 2010. [More...](#)

### More St

- NC pu gather fi
- Impro commu
- NCIPH training
- Pfaenc



The North Carolina Institute for Public Health newsletter series of Institute. Be sure you are a publicati

The Institute is assisting education in Wilmington. [www.nciph.org](http://www.nciph.org)

## Incubator works to prevent cervical cancer through increased HPV vaccination

Almost a quarter of a million women die of cervical cancer worldwide each year, and now there is a vaccine to help prevent it. HPV vaccination and cervical cancer prevention in women has become a focus of the South Central Partnership for Public Health, one of North Carolina's public health incubator collaboratives.

Local health directors in South Central North Carolina are working together with many partners to design an intervention to increase use of the human papilloma virus (HPV) vaccination that can prevent most cervical cancer. Social marketing and educational messages will target mothers of 11- and 12-year old girls (the recommended age to receive HPV vaccine) to relay that the vaccine is safe and effective, and to communicate how to access the vaccine.

Contributing partners include local health directors, UNC Gillings School of Global Public Health, UNC School of Journalism and Mass Communication, NC Division of Public Health, UNC's Lineberger Cancer Center, NCIPH, a social marketing firm, and health educators in local health departments.

Bill Smith, health director in Robeson County, identified this issue as a regional priority for the partnership. "Our concern originally was that information given to parents via public schools did not reach the intended audience. We have been fortunate to have UNC students and staff to do much of the research and to conduct focus groups. With NCIPH orchestrating the partnership



across research and practice, I am proud of the process and product.

Connections to research have advanced the project over the past year. Harrison gives two examples:

Assistant Professor Noel Brewer in the Gillings School of Global Public Health has shared his research findings on risk perception and risk communication in the context of HPV vaccination decisions. In collaboration with the CDC, Dr. Brewer's Carolina HPV Immunization Measurement and Evaluation Project in the South Central region is mapping access to providers who stock HPV vaccine and identifying reasons why parents get the vaccine for their daughters. "It's exciting to see research evidence move into practice. I am especially

impressed at the Incubator's dedication to using approaches that are supported by research."

UNC graduate students have dedicated time to focus groups and key-informant interviews as part of message testing on the project. Dr. Joan Cates, lecturer in journalism, says of the project, "Working with the South Central Partnership has provided an unusual opportunity for our health communication students to design a social marketing campaign to increase uptake of HPV vaccine. The students were able to interact not only with local public health personnel but also – and more importantly – they could connect directly with community members and mothers of young girls to find out what the primary issues were."

## What is a Public Health Incubator?

The South Central NC Partnership for Public Health is one of six Public Health Incubator Collaboratives funded by the NC General Assembly to support regional collaboration and innovation. Incubators are voluntary groups of local health departments that collaboratively identify public health priorities they will address in their region. By combining resources, health departments have greater capacity to test innovative ideas, and to secure additional funding. The Incubators identify and disseminate "best practices" to improve public health practice across the state and the nation.

The South Central Incubator represents many of the North Carolina counties with the highest rates of cervical cancer: Anson,

Bladen, Cumberland, Harnett, Hoke, Lee, Montgomery, Moore, Randolph, Richmond, Robeson, Sampson, and Scotland. Cervical cancer mortality rates here are twice those for the rest of the state. African American women in some of these counties have up to four times the odds of dying from cervical cancer as white women. Reasons for these disparities include lack of medical services, lack of awareness of existing services, and poverty which prevents many women from affording adequate medical care.

For more information about all of the North Carolina Public Health Incubator Collaboratives go to: [nciph.sph.unc.edu/incubator/](http://nciph.sph.unc.edu/incubator/).

# NCPHA e-newsletter

E-Letter from the NC Public Health Association and the NCPHA Public Awareness Committee

MARCH 2010

## Census questionnaires will be mailed in mid-March

North Carolina was the 3rd largest growing state from 2008-2009 with over 134,000 new residents. Local governments use census information to plan for the future of our communities and where to place schools, hospitals, water/sewer services, roads, and emergency services. Completing the Census form helps bring federal funding to the state and to your community for programs that help your county and its residents.

So, why should public health care? What a great way to learn how your county has changed in the past 10 years! How can public health hope to impact the health and well-being of North Carolina residents unless we know the number of residents, the demographic changes, or their eco-social status? How can public health hope to accurately assess the health needs, to address such needs and assure the needs are met? And who can forget about funding?? Current census data impacts where the dollars go and what programs they are directed to. Plus local health directors cannot forget the challenging equity formula through the Division of Public Health!

We are represented on the Governor's Complete Count Committee by local health directors John Morrow and Carolyn Moser. There are also numerous local committees to aid in awareness and in which public health staff may



10 questions and 10 minutes –  
Complete the 2010 Census – Be counted!

get involved. Make sure you and others complete the questionnaire and return it via the mail.



## From Jones Street...

*An update from Executive Director Lynette Tolson*

I hope you enjoyed the 1st Edition of the NCPHA E-Newsletter. It will be a great tool for us to communicate public health news. The E-Letter will also be a great advocacy tool for us during the 2010 NC Legislative Session. Please share with me your thoughts on the E-Letter.

Mark your calendars for May 12th, the first day of the NC Legislative Session. This year is going to be a very hard year for public health due to the continued budget crisis. In 2009-2010, there was approximately a \$27 million dollar reduction from the General Assembly and another 5% hold back from the Governor in the state public health budget. Public Health is down to the bare bones in funding!

NCPHA will need your help this session. We need to speak in one voice and speak loudly to be heard over the other advocates whose programs are also reduced or eliminated. Legislative Alerts will be going out over our list-serve asking for your involvement in the budget process. To be on the list-serve, you must be a member of NCPHA. Tell your colleagues to join NCPHA and

be a voice for public health this session!

Mark your calendars for the NCPHA 1st Annual Spring Conference April 23 at the Hilton, RDU Airport. The breakfast session will be an advocacy program. On the panel is Representative Mickey Michaux, Chair of the House Appropriations Committee. We look forward to hearing his comments regarding the budget. We want to make certain he understands the importance of funding public health. Others on the panel include Dr. Jeff Engel, State Health Director and Office of State Budget staff (invited).

Next month you will be receiving the quarterly newsletter. We are going green! We have no plans at this time to mail the quarterly newsletter as we have in the past. Please make sure we have your current e-mail address.

Lynette Rivenbark Tolson,  
Executive Director  
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Raleigh, NC 27609  
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Fax: (919) 828-6203  
E-mail: ltolson@ncapha.org

# How to make chocolate chip cookies

<p>350 F</p>				
			<p>5 min</p>	
<p>20 min</p>	<p>15 min</p>	<p>:)</p>		

"How to make chocolate chip cookies" created by Zannie Gunn

# Apollo 11

## Race to the moon

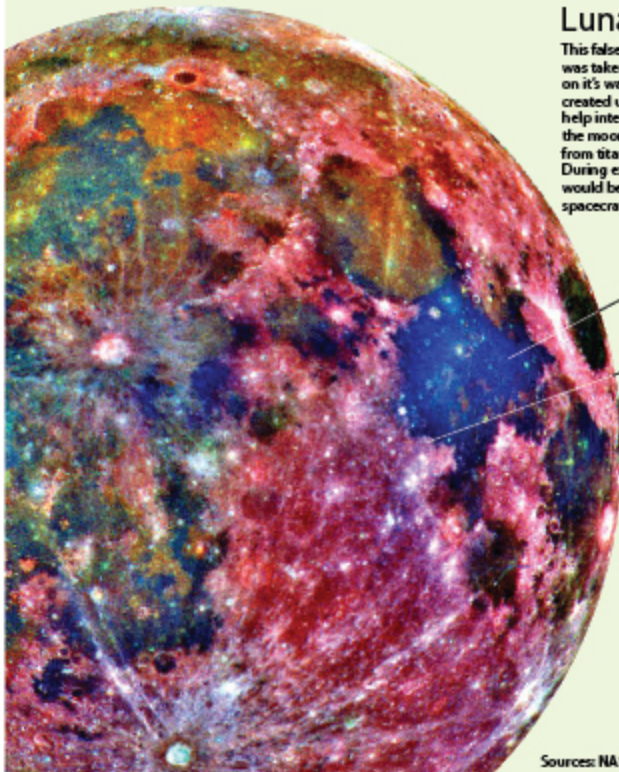
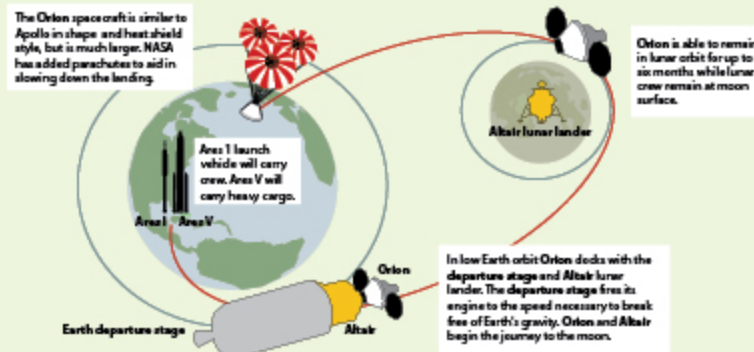
40th Anniversary

The 40th Anniversary of Apollo 11 celebrates an eight day space mission with the first manned lunar landing and exploration. The mission completed by the United States was the product of years of hard work and thousands of people. It was a challenge brought on by military competition with the Soviet Union. It was an imagined dream made real with logistical and technical feats. It gave to future generations is further scientific study of the universe, our solar system, and our planet, Earth.



## The Future

NASA's Constellation Program aims to carry crews to the moon for extended stays and then on to Mars and other places in the solar system.

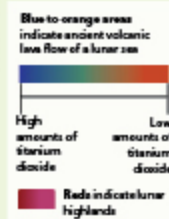


## Lunar Resources

This false color photo of the moon was taken by the Galileo spacecraft on it's way to Jupiter. The photo was created using three different lens that help interpret the soil composition of the moon. Oxygen can be extracted from titanium dioxide, shown in blue. During extended lunar stays, oxygen would be used for life support and spacecraft fuel.

Sea of Tranquility is especially rich in titanium dioxide

Apollo 11 landing site



Sources: NASA.gov

## The Challenges

Atmospheric re-entry  
The biggest challenge facing NASA was safe return from space. Advanced heat shield designs use blunt body technology to push shock waves and heat away from the space craft.



Project Mercury  
NASA's first mission to orbit a manned spacecraft around Earth. The goals were to study man's ability to function in space, and return safely to Earth. Astronaut Alan Shepard a WWII test pilot was the first American in space.



Gemini Program  
Astronauts and equipment spent extended stays in space. Crews practiced docking and rendezvous, the maneuvering of two spacecrafts in same orbit at same speed. Astronaut Edward White was the first American to step outside a spacecraft in space, known as extra-vehicular activity.



Scouting the Moon  
Unmanned spacecrafts Ranger, Surveyor, and Lunar Orbiter, tested the moon's surface, took soil samples, and mapped the lunar landscape.



Apollo Program  
Established the United States as a forerunner in space exploration. NASA developed and advanced technology for space and Earth and developed the capability to work in a lunar environment. American astronaut Neil Armstrong was the first man to walk on the moon.



Created by: Zannie Gunn

# Flu-gle

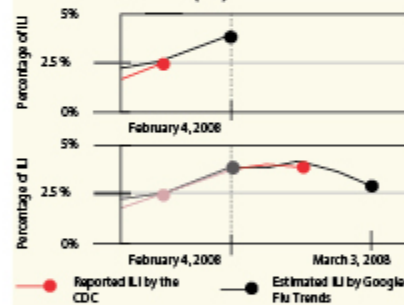
fever chills muscle aches sore throat  
 tylenol **influenza** body aches  
 temperature cough chills fever  
 flu muscle aches flu symptoms  
 chest congestion **thermometer** **theraflu**  
 high school basketball

Google Flu Trends is a website that predicts outbreaks of Influenza in the United States by tracking the relative popularity of a flu-related search term in any region.

## COLLECTIVE INTELLIGENCE

Google programmers found a relationship between frequency of search queries related to the flu and people experiencing influenza-like symptoms. Google is able to predict an influenza outbreak one to two weeks before the Center for Disease Control (CDC.)

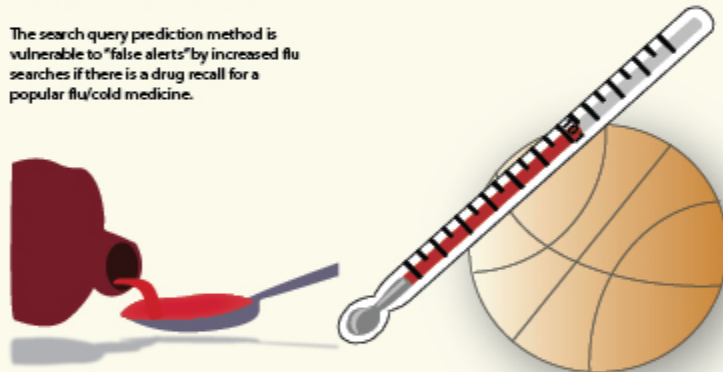
### Percent of reported and estimated patient Influenza-like illness (ILI)



## DATA MINING

Google has examined their top-scoring search queries that best match flu outbreak data from the CDC. "High school basketball" is an example of a search query that coincided with the influenza season, but was not included in the search model.

The search query prediction method is vulnerable to "false alerts" by increased flu searches if there is a drug recall for a popular flu/cold medicine.



## INFLUENZA SURVEILLANCE

The CDC tracks the flu by surveying doctors on the number of patients seen with influenza-like illness. It takes one to two weeks to collect and release this data. This type of "syndromic surveillance" is used to prevent or control a public health disease outbreak.

## FATHER OF MODERN EPIDEMIOLOGY

**Dr. John Snow**  
1813-1858

Dr. Snow was a practicing physician and anesthesiologist. He tracked and studied several cholera outbreaks in his lifetime.



### What causes Cholera?

Dr. Snow believed cholera was caused by contamination of germs in water, but most physicians in his day believed cholera was caused by breathing in miasmas, "poisonous gases", found among sewers, swamps, and garbage dumps.



## MEDICAL GEOGRAPHY

Study of public health focusing on data patterns of disease and death related to a specific location.

### Broad Street Pump

In August 1853 cholera broke out in the Soho District in London. Dr. Snow suspected it was caused by contaminated water from the Broad Street pump. Dr. Snow mapped the homes of the cholera deaths and through investigation, discovered 61 out of 73 victims had drunk water directly from the Broad Street pump. Dr. Snow convinced the local government to remove the Broad Street pump handle. Although the members of the government did not believe the pump was the cause of cholera, they did remove the pump handle as a preventive measure and the cholera outbreak quickly ended. Inspired by Dr. Snow's investigation, it was discovered later that the well lining had decayed, allowing nearby sewage contaminated by the cholera bacteria to seep into the well water.



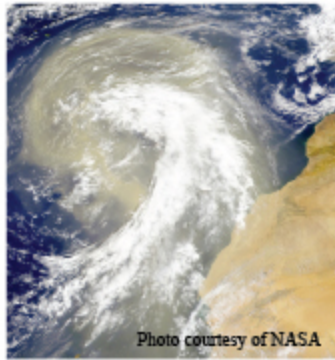
Dr. Snow's map of homes of cholera victims in relation to the Broad Street pump.

# Hurricanes

Hurricanes are tropical cyclone storms in the North Atlantic and North Pacific oceans which form above the equator starting at 8°-20° latitude in waters with a temperature at or above 80°F between the months June through November.

## Tropical Disturbance

Hurricanes begin as clusters of thunderstorms over tropical waters. These tropical disturbances are formed by one of three ways. Either the convergence of surface winds from Southern and Northern Hemisphere easterly trade winds, the convergence of air along the boundary between masses of warm and cold air, or, most commonly by atmospheric disturbances from Africa. Turbulent eddies in the jet air stream are formed when easterly winds rake across the mountain peaks in the highlands of Ethiopia and travel across the African continent skidding into the tropical Atlantic ocean.



## Tropical Depression

Tropical disturbances will organize under favorable conditions to form tropical depressions. Conditions needed are:

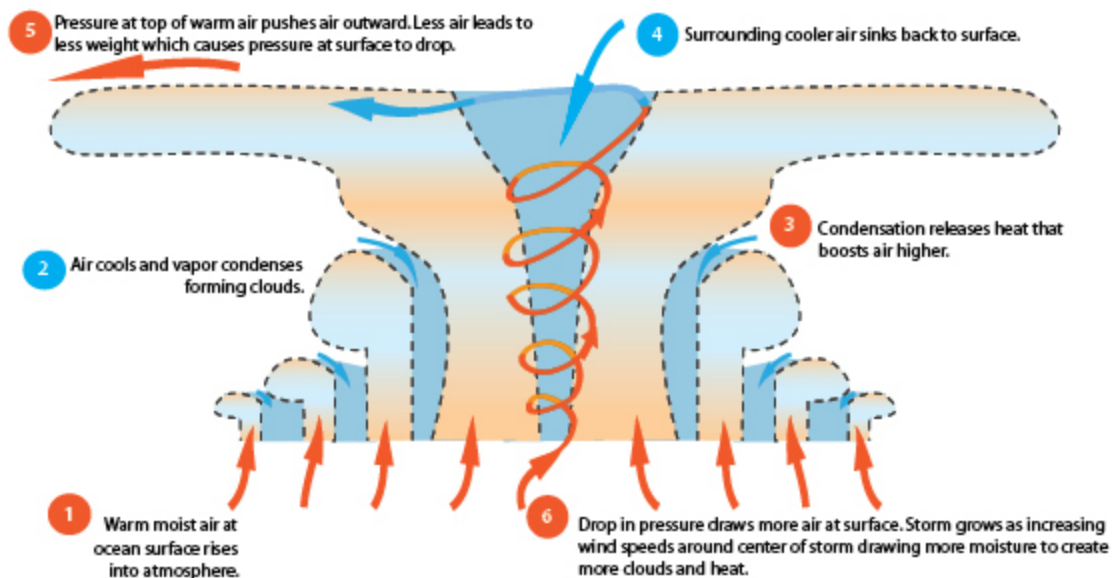
- 1) Warm waters 80 °F or greater
- 2) Moist air
- 3) Winds that are light and moving at the same speed at all heights from the ocean surface and in the atmosphere.

## Storm Categories

Tropical depression becomes a tropical storm when winds reach 39 mph. The storm is then given a name. When winds reach 74 mph, it is officially a hurricane.

## Organization of a Storm

Diagram of the chain reaction and feed back mechanism that turns a tropical disturbance into a storm.



## 2008 Storm Tracker

August and September proved to be months of destructive hurricane activity.

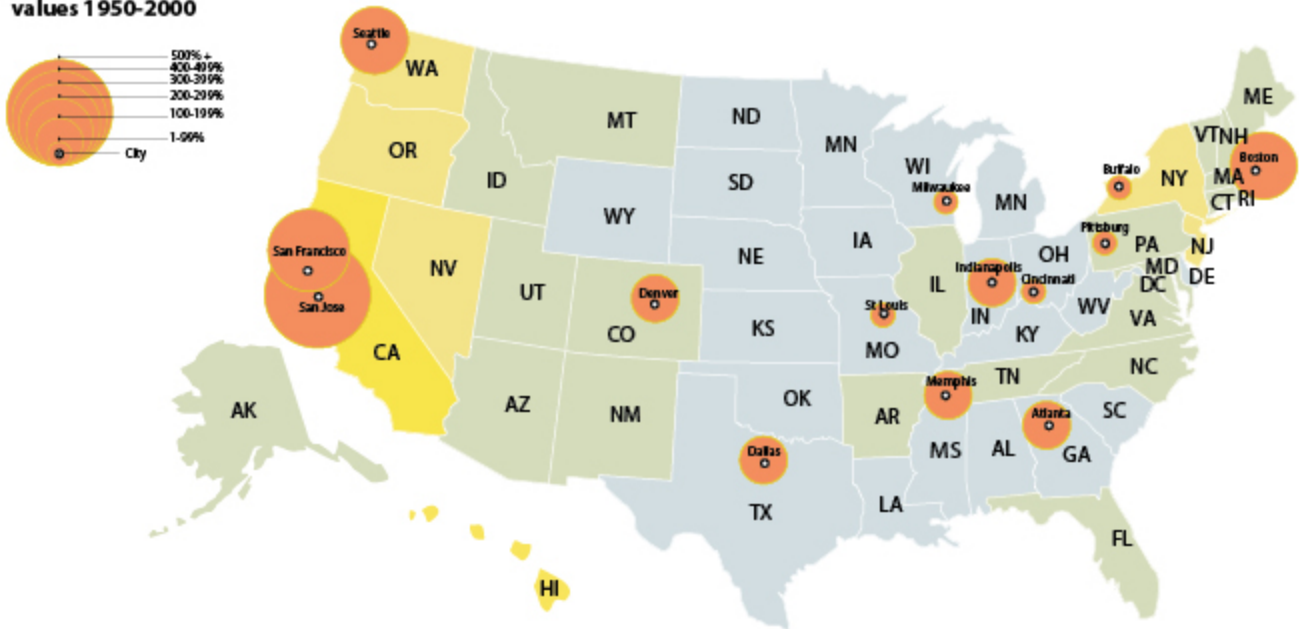


# Trends in the United States Real Estate Market

Median monthly owner costs (2000) as a percentage of household income

19-20% 21-22% (national average is 21.7) 23-24% 25% plus

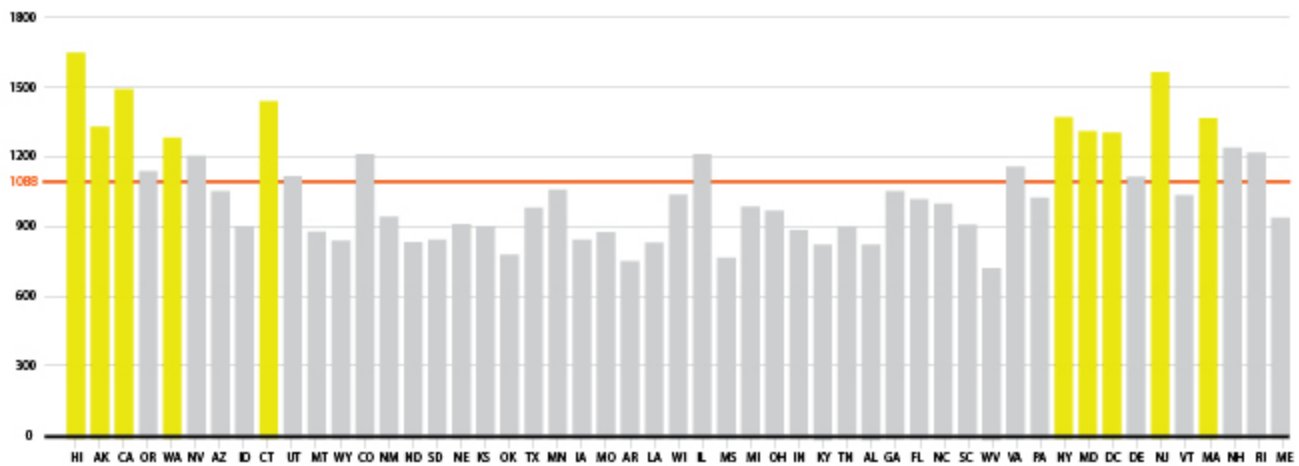
Percent change in mean housing values 1950-2000



Median monthly owner costs (2000) in dollars

Graph is organized by geographic location.

Top Ten monthly owner costs Average monthly cost is 1088



Source: U.S. Census Bureau, Univ. of Texas

Infographic



## Computer Skills

### Graphics Software

- Photoshop
- Illustrator
- InDesign

### Multimedia Software

- Flash
- After Effects
- Dreamweaver
- Final Cut Pro
- Premiere

### Programming Languages

- CSS
- Flash Active script
- HTML
- ColdFusion

### Design

- Typography
- Charts and Graphs
- Graphic Illustrations
- Information Graphics
- Visual Identities

## Education

### School of the Art Institute of Chicago, Chicago, IL

- BFA Painting and Drawing

### College of Design, NC State University, Raleigh, NC

- BA Art and Design

*Graduated Magna cum Laude*

### School of Journalism and Mass Communication at UNC, Chapel Hill, NC

Professional Development Coursework:

- Multimedia Animation
- Information Graphics
- Newspaper Design
- Magazine Design
- Video PSA Production

## Summary

**Graphic Artist** with over 15 years experience using graphics software. Adept at taking concepts to final product to drive brand. Expertise in developing highly crafted designs, optimizing imagery, and skilled use of typography, color, and composition. An innovative problem solver who enhances the quality of an organization by exceeding expectations.

## Professional Experience

### University of North Carolina, Chapel Hill, NC

2003-2011

#### Graphic Designer

Design marketing material including: Websites, Flash animations, Annual Reports, Brochures, E-marketing campaigns, Postcards, Newsletters, Posters, and Visual Identities

- Created portfolio that increased health campaigns by 100% over a two year time period
- Developed clean easy to read, attractive, professional marketing brochures
- Designed and assembled e-marketing mail-outs that were eye catching with optimized images, that increased participation in numerous conferences and training sessions
- Prepared a variety of marketing materials for statewide health campaigns including: billboards, news ads, posters, fliers, stickers
- Established an online and print newsletter that was used as model for other organizations
- Created informative and visually balance posters
- Created variety of logos for several different types groups and organizations
- Programmed and designed attractive and easy to navigate websites

**Awards:** 2010 Star Heel, 2007 NCIPH Above and Beyond Award

### University of North Carolina, Chapel Hill, NC

2001-2003

#### Graphics and Multimedia Producer

Developed websites, flash animations, and videos for online learning

- Created Flash animations that educated students on chemical interactions in an easy and fun manner
- Illustrated technical drawings for pharmaceutical textbook, Applied Pharmaceutics in Contemporary Compounding  
*"The book is illustrated extensively. It serves as an excellent text for a pharmacy technician seeking advanced training, a pharmacy student currently enrolled in a School of Pharmacy, or a pharmacist developing a compounding service."* – Morton Publishing
- Developed instructional web site that assisted students in discovering their strengths and weaknesses in the understanding of core pharmaceutical concepts
- Produced instructional videos for online streaming that educated distance-based students on key compounding concepts