

Climate Change and Local Public Health

NACCHO Perspective

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Chair, Global Climate Change Work Group

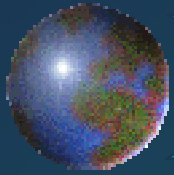
National Association of County and City Health
Officials

APHA Conference ,

Washington DC

November 5, 2007



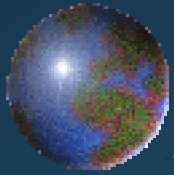


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IPCC 2007 Fourth Assessment

Report Findings

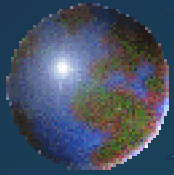
- ❖ Warming of the climate system is “unequivocal.”
- ❖ Warming is anthropogenic at a “very high confidence” level because of human activities (fossil fuel use and land use change) producing atmospheric CO₂, methane and nitrous oxides.
- ❖ Global warming and sea level rise will continue into the future



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IPCC Report (Continued)

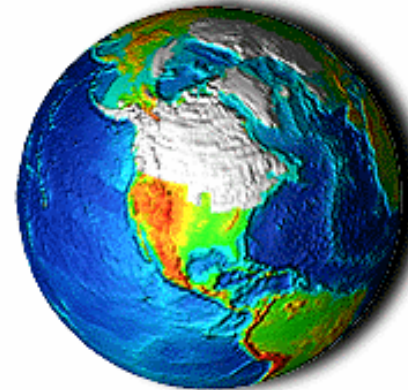
- According to the range of scenarios, at the current accelerated level of greenhouse gas (GHG) emissions, there will be a *2^o temperature rise* in this century.
- Even if GHG emissions were held to year 2000 level, there would be a *1^o rise*.



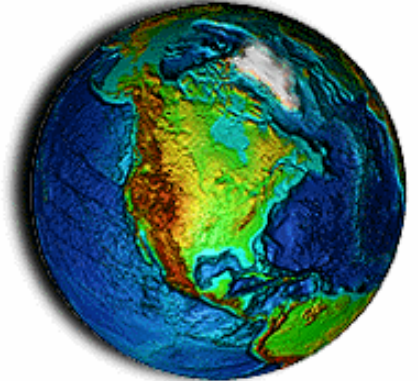
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The Challenges of Climate Change

- Mitigation
- Adaptation
- All of the above

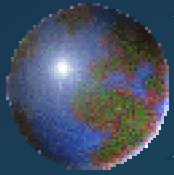


ICE SHEETS THROUGHOUT
THE N. HEMISPHERE
INDICATE COLD CONDITIONS
SOME 21,000 YEARS AGO.



ICE SHEETS TODAY,
ARE SMALLER AND WERE
NOT IN EXISTENCE IN SOME
WARMER PERIODS, I.E.,
120-90 MILLION YEARS AGO.

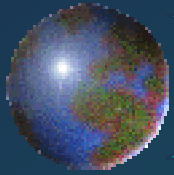
Courtesy of www.ncdc.noaa.gov



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Mitigation

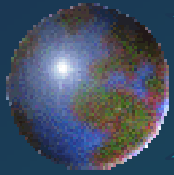
- ❖ Actions which are adopted to reduce the effects of anthropogenic activities on the global climate
 - ❖ Decrease fossil fuel use
 - ❖ Reform land use to preserve and increase sinks for GHGs and the earth's albedo
 - ❖ Decrease meat production
 - ❖ Human population control



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Plausible Climate Risks with The Existing Climate Change

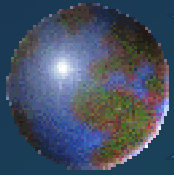
- ❖ Increase in extreme weather events
- ❖ More intensive storms and hurricanes
- ❖ Heat waves
- ❖ Droughts
- ❖ Floods
- ❖ Wildfires
- ❖ Changing Ecosystems
- ❖ Migration of Communicable Disease Vectors
- ❖ Social, Political and Military Disruption
- ❖ National and global eco-refugees
- ❖ Economic Disruption



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Public Health Adaptation to Climate Change

- A strategy to manage both imminent, intermediate and long term health risks associated with climate change
- The public health risks are protean and extensive
- The present and potential future challenges to public health are considerable



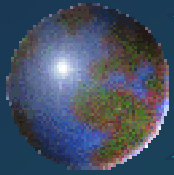
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Public Health Challenges of Adaptation

- ▣ Minimizing Illness and Death to Vulnerable Populations associated with extreme weather events.
- ▣ Preventing and Controlling Emerging and Re-emerging Infectious Diseases
- ▣ Prevent and Control Intermediate and Long Term Chronic Health and Mental Health Conditions.



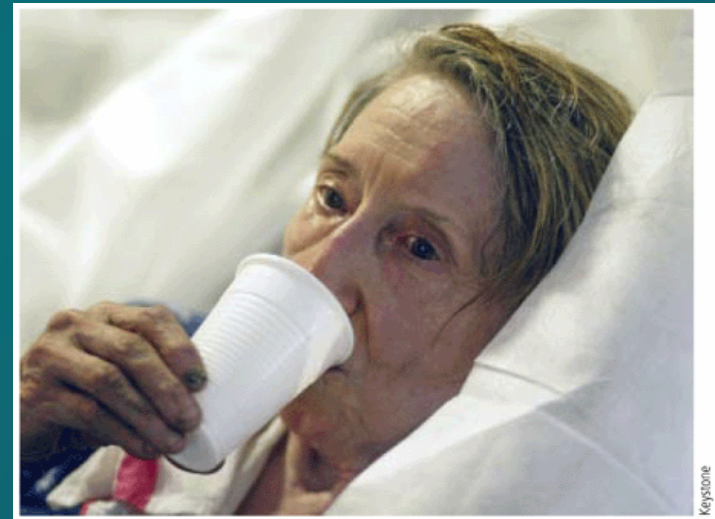
Photo Courtesy of www.hawaii.gov



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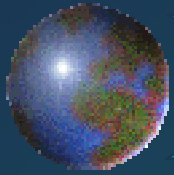
Local Public Health Must Work to Assure

- ❖ Safe and Healthy Air, Food and Water Supplies
- ❖ Safe and Adequate Shelter
- ❖ Access to Minimal Personal Medical and Mental Health Services



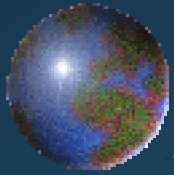
An elderly woman drinks after she was brought by firefighters to the Saint Antoine hospital in Paris, Monday, 11 August 2003.

Photos Courtesy of www.scienceblogs.com



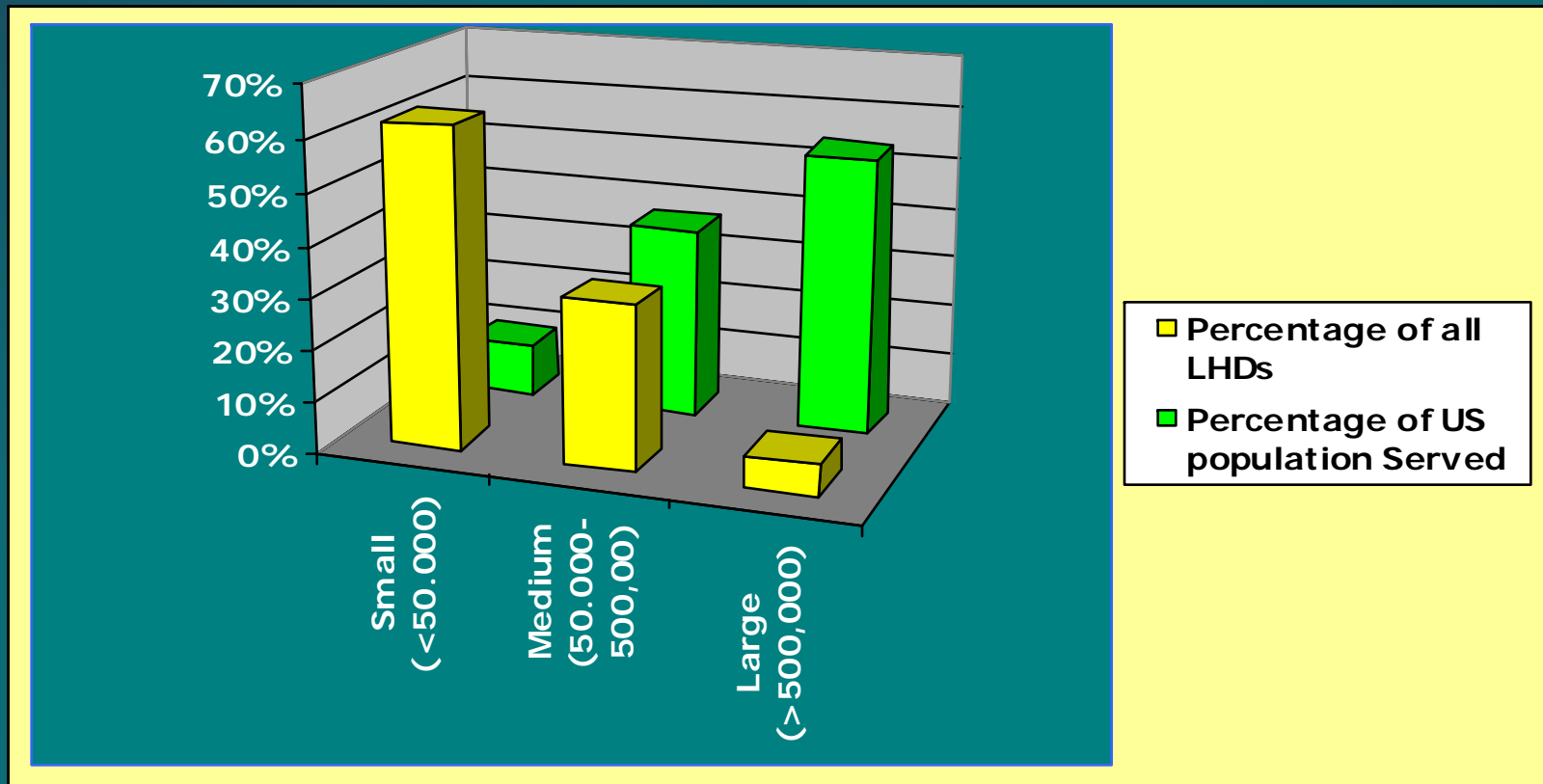
The Readiness of Local Public Health

- Using Extreme Weather Events Proxies for climate change, public health gets mixed grades.
 - ❖ Disaster infectious disease control-Many Excellent Examples
 - ❖ Intermediate and long term public health follow-up-Questionable
- An Examination of NACCHO Local Public Health Profile may give clues as to its readiness.
 - ❖ http://www.naccho.org/pubs/product1.cfm?Product_ID=172

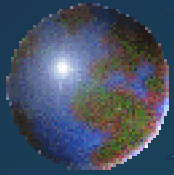


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LHD Jurisdictions by Population

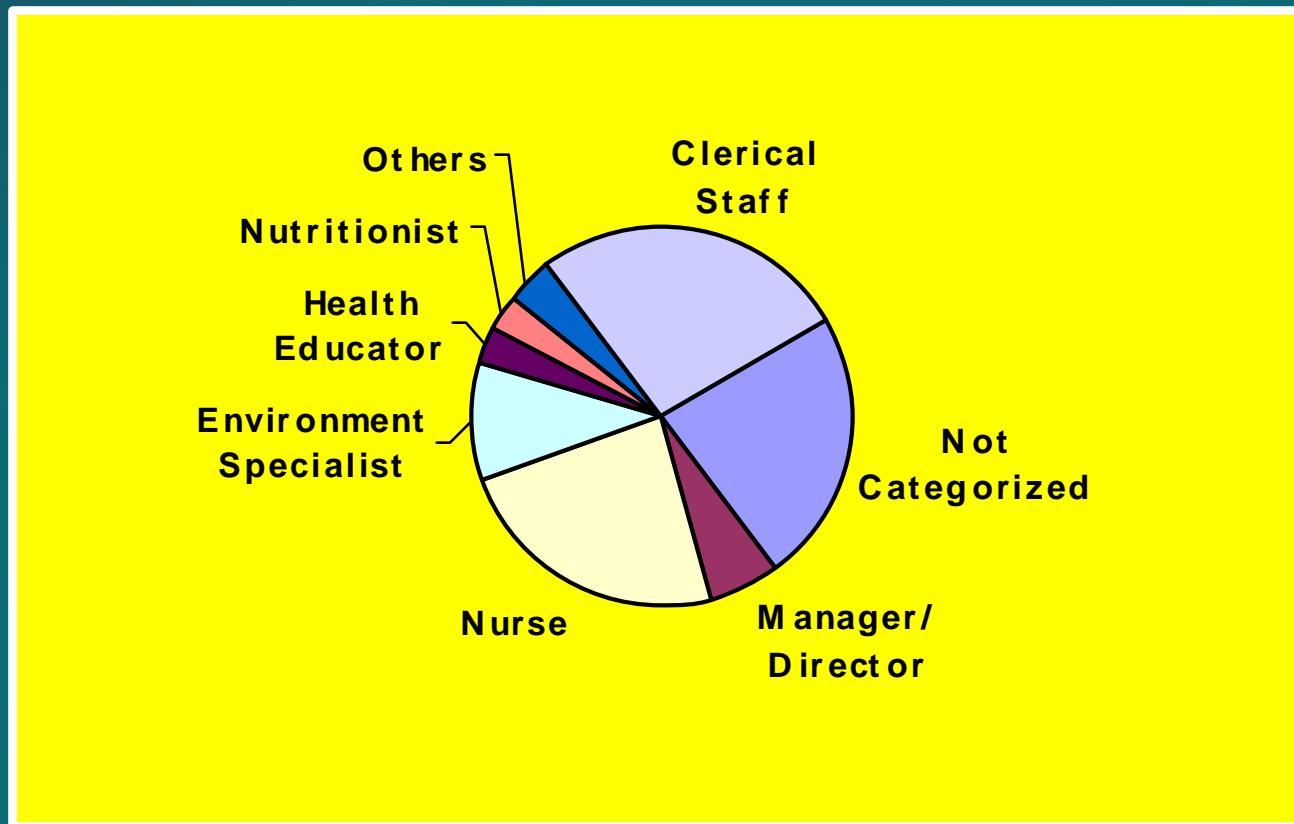


http://www.naccho.org/pubs/product1.cfm?Product_ID=172

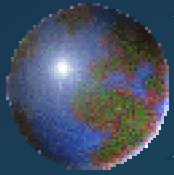


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Professions in Local Public Health Departments



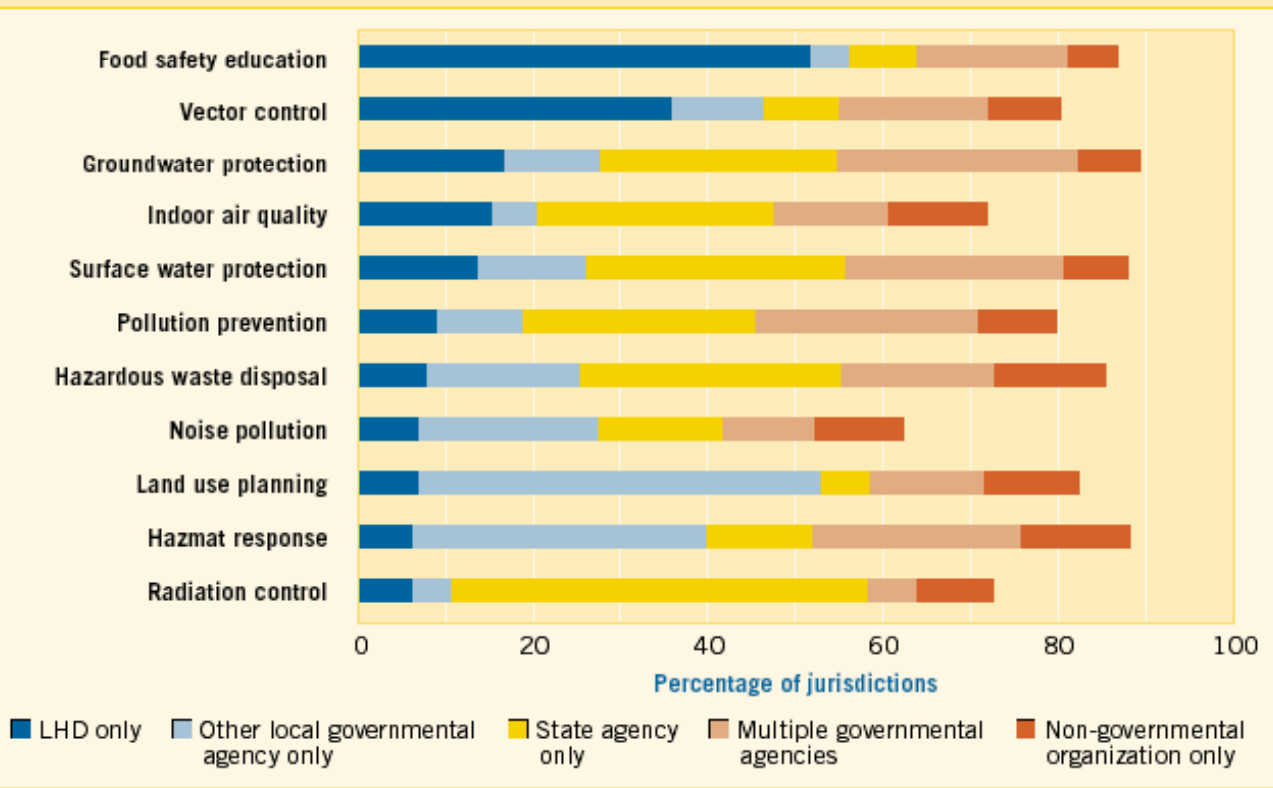
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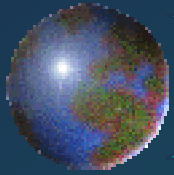
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Organizations involved in Environmental Health Activities

Figure 7.18 | Organizations Engaged in Environmental Health Activities



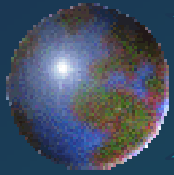
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Investment in Public Health

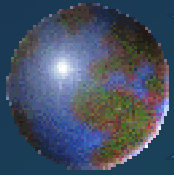
- Less than 5% of health budget is in prevention
- Governmental public health substantially lower to estimated 2%
- Preparedness for local public health is less than \$2 per person



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NACCHO Approach to Local Public Health and CC

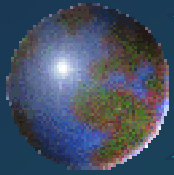
- Adopted a specific Climate Change Agenda
- Cross Linking Existing Enterprises
 - ❖ Modern Environmental Health Practice
 - ❖ Public Health Preparedness
 - ❖ Local Public Health Infrastructure Building
 - ❖ Social Justice and Health Equity



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Focused Climate Change and Health Agenda

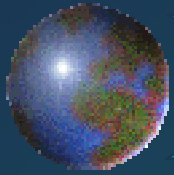
- National Workgroup on Global Climate Change
- Policy Adaptation
- Partnering with *Environmental Defense*, and *George Mason University* on Survey of LHDs
- Educational strategies and programs for LHDs
- Forging partnerships with governmental agencies, non profit organization, community and businesses organizations for joint endeavors



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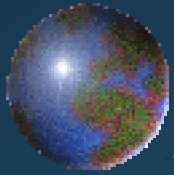
Promoting a Modern Environmental Health Agenda

- Globalization and Local Public Health
- Built Environment
- Responsible Land Use and Sustainability Planning
- Environmental Justice
- Application of Information Technology (e.g. GIS) and Ecological Approaches to EH



All-Hazards Preparedness

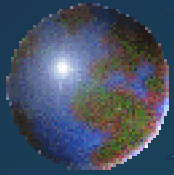
- NACCHO Advocated for Federal Funding for Local Public Health
- Engineered CDC Cooperative Agreements that Included Participation of Local Public Health
- Education and Training Modules for Preparedness
- Coordinates Medical Reserve Corps Funding
- Partnered with Stakeholder in Major Public Preparedness Education Initiatives



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Strengthen The Local Public Health Infrastructure

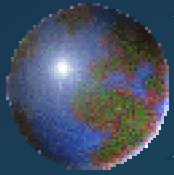
- Accreditation and Standardization of LHD
- Established and Implemented APEX Instruments in Public Health Practice and Community Health Assessment
- Leadership Development
- Best Practices



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Social Justice and Health Equity

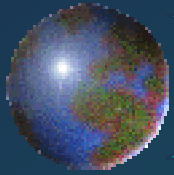
- Adopted High Priority Policies and Programs relating to Social Justice and Health Equity
- Obtained Grant Funding for Local Public Health in Developing Initiatives
- Instituted Major Public Television Series on Social Determinates and Health



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Future Needs for Local Public Health

- National Focus on the Health and Climate Change
 - ❖ A Central National Focus or Center for Excellence
 - Research
 - Program Development
- Establish regional ecologically based organizations of Stakeholders to build capacity including LHDs and State HDs with other stakeholders
- Increase in direct support to the existing public health infrastructure

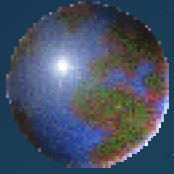


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The Precautionary Principle in Environmental Health

- Encourages policies that protect human health and the environment in the face of uncertain risks.
- An overarching framework that links environmental sciences and public health.

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“Chance favors a prepared mind.”

Louis Pasteur