

National Center for Environmental Health

At the turn of the Century




Strategic Plan 1999-2003

CDC
CENTERS FOR DISEASE CONTROL
AND PREVENTION



STRATEGIC PLAN

The National Center for Environmental Health
at the Turn of the Century
1999 - 2003





C O N T E N T S

Preface	1
Mission and Vision Statements	2
NCEH Core Values	3
Birth Defects and Pediatric Genetics	5
Child Development, Disability, and Health	7
Emergency and Environmental Health Services	10
Environmental Hazards and Health Effects	14
Laboratory Sciences	16
Center-wide Goals	19

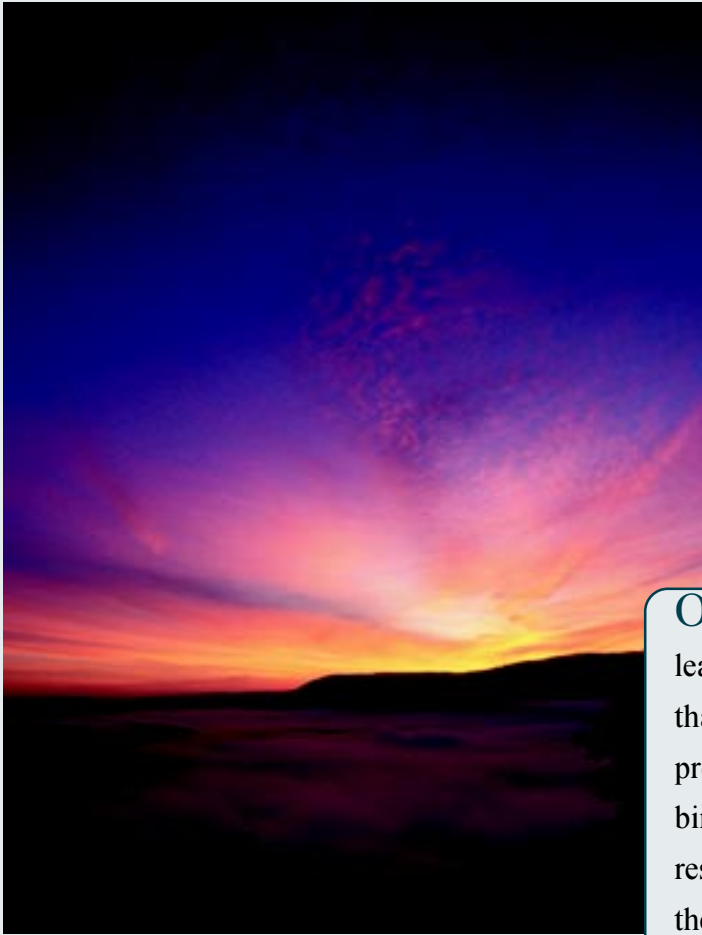
P R E F A C E

The National Center for Environmental Health (NCEH), as part of the Centers for Disease Control and Prevention (CDC), is unique in the federal government for its focus on public health issues related to the environment. Our work covers the life span, from preventing birth defects and developmental disorders to helping an increasingly older population minimize the impact of disabilities on their lives. As the pace of technologic advances continues to accelerate, NCEH must maintain its position as a leader in environmental health in order to ensure that the price of progress is not reduced health for Americans or the global community. The genetic revolution has already changed—and will continue to shape—public health policy and the delivery of public health services. NCEH is prepared to meet these and future challenges. However, we must continue to attract and retain top scientists and to develop and maintain state-of-the-art laboratories and computer resources if we are to perpetuate the Center’s scientific excellence—excellence we share with our state, local, and international partners who are delivering prevention services.

All federal agencies must do more with fewer resources. Our strategic plan will help us make decisions about allocating resources, articulating future program needs, and measuring our performance. The plan involved the efforts of every NCEH program and many staff members. Everyone was encouraged to propose objectives and shape time lines. Although we have come a long way in developing this plan, we recognize that it is a work in progress that must be reviewed regularly and changed as necessary to keep us working toward our goals. I believe that the scientific and policy priorities articulated in NCEH’s strategic plan reflect or anticipate the health concerns of the American public as well as those of the global health community.



Richard J. Jackson, MD, MPH
Director
National Center for
Environmental Health



Our mission: To provide national leadership, through science and service, that promotes health and quality of life by preventing or controlling those diseases, birth defects, disabilities, or deaths that result from interactions between people and their environment.



Our vision: People free from diseases and disabilities resulting from interactions with their environment.





NCEH Core Values

Respect	<p>We value the health and quality of life of present and future generations.</p> <p>We value the dignified and honest treatment of all people.</p> <p>We value our colleagues and our partners, their diversity, their leadership, and their contributions to public health.</p>
Integrity	<p>We value the highest quality scientific data, derived openly and objectively.</p>
Accountability	<p>We value the public's trust and confidence in our work.</p> <p>We value effective communication among our fellow workers, our partners, our stakeholders, and the public.</p> <p>We value effective management and service to the public.</p>
Commitment	<p>We value responsive and effective actions to improve public health.</p> <p>We value personal and professional responsibility in a work environment that promotes integrity, creativity, and achievement.</p> <p>We value a work environment accessible to all people of all abilities.</p>

Science

Excellence in scientific research is the foundation upon which the NCEH mission is based. As laboratory technology improves, our ability to detect and prevent disease will increase. More genetic and other types of data will become available, but privacy issues may limit access to this information.

NCEH will work to turn what we learn into practical efforts to improve the public health. NCEH's scientific endeavors must be guided by an overriding interest in the public's health and the understanding that disease prevention requires that we link the results of our scientific inquiries to policy development and program implementation. We believe that academic and public health research communities benefit both from our scientific collaborations and from our

financial support. Further, we believe that we should be guided in our endeavors by scientific integrity, ethical behavior, and a willingness to share our scientific findings with the public in plain, clear language.

Service

Clearly communicating the importance of NCEH's unique role to people inside and outside of CDC is critical to achieving our mission. We define "service" as the transfer of our scientific findings to the American public and to our local, state, national, and international constituents. Our collaborative efforts with these constituents are vital in accomplishing this transfer as we seek to become more efficient, reduce duplication of effort, and streamline government.

Leadership



Our colleagues benefit from the general guidance we provide, the science-based information we use to set priorities and direct resources, the federal funds we make available, and the technical experts we deploy to evaluate their programs and assist and train their staffs.

As states are asked to take on more responsibility, NCEH's role will shift to providing them with critical financial support, training, and technical assistance. Because the public will be increasingly involved in environmental public health issues, our ability to effectively communicate risk and health messages will become even more crucial.

We value our ability to help improve the health of many individuals and communities and, ultimately, of this nation. We understand that disease prevention and control is dynamic and to some degree unpredictable, but we must be prepared to lead national and international efforts. Public health issues will be less constrained by national borders than in the past. As the demographic composition of the U.S. population changes, public health needs will change, and we will need to adapt prevention strategies accordingly so that we can continue to work on improving the health of every American.

Regulatory reform will undoubtedly continue, increasing the importance of environmental health data and human health data in environmental decision making. Disadvantaged populations will continue to bear a disproportionate burden of environmental health problems unless we recognize that effective



First Lady Hilary Rodham Clinton with the Minister of Health, People's Republic of China, the President of Beijing Medical University, and U.S. and Chinese directors and advisors at signing ceremony for Sino-American collaboration on folic acid study in China.

decision making requires an understanding of cultural, social, economic, and political circumstances. We must also recognize the importance of planning for the future. This process requires examining new areas of scientific inquiry and collaborating with our partners to make the changes that help us maintain our vital role as leaders in environmental public health.

Birth Defects and Pediatric Genetics

GOAL 1. Complete, timely, and accessible surveillance data on birth defects and genetic diseases.

Objective 1.1. By October 2000, determine the utility of state hospital discharge data for national birth defects surveillance.

Objective 1.2. By December 2000, begin using prenatal diagnosis in surveillance for selected birth defects in Atlanta.

Objective 1.3. By December 2001, expand CDC's existing surveillance systems to include monitoring of selected genetic conditions whose onset occurs during childhood.



Objective 1.4. By December 2002, improve national birth defects surveillance by increasing the number of states conducting population-based birth defect surveillance to at least 38.

Objective 1.5. By December 2000, develop standard case definitions and a coding system for birth defects to improve surveillance activities.

GOAL 2. Improved understanding of the risk factors for and causes of birth defects and genetic conditions.

Objective 2.1. By December 2000, design a study to investigate the childhood morbidity, mortality, and disability associated with selected genetic conditions.

Objective 2.2. By December 1999, improve epidemiologic research on cardiovascular malformations.

Objective 2.3. By December 1999, establish a biological specimen bank for assessing environmental and genetic factors related to birth defects.

Objective 2.4. By December 2000, initiate a study of genetic and environmental factors associated with neural tube defects.

Objective 2.5. By December 2001, evaluate measures of exposure to environmental factors for use in epidemiologic studies of birth defects.

Objective 2.6. By December 2002, conduct etiologic studies that incorporate the use of biologic markers of exposure and susceptibility in the study of causes of and risk factors for birth defects.

Objective 2.7. By December 2003, publish the first report on causes of and risk factors for birth defects on the basis of collaborative research through the Centers for Birth Defects Research and Prevention.

GOAL 3. Prevention activities for birth defects.

Objective 3.1. By October 1999, submit for publication the results of a study of the effectiveness of the periconceptual use of 400 micrograms of folic acid in preventing neural tube defects in a community intervention in China.

Objective 3.2. By December 2000, implement a program for preventing birth defects caused by exposure to pharmaceuticals by expanding current activities and partnering with government agencies, private institutions, and other stakeholders.

Objective 3.3. By December 2002, publish a report on a three-state evaluation of the use and benefits of prophylactic antibiotics among infants with sickle cell anemia whose condition was detected by newborn screening.

Objective 3.4. By December 2002, increase the percentage of women who consume 400 micrograms of folic acid from 25% (in 1996) to 50%.



Objective 3.5. By December 1999, identify methods of evaluating the prevention potential of folic acid.

GOAL 4. Development of a health policy and communication of scientific findings, program goals, and health messages.

Objective 4.1. Each year, sponsor one or two meetings of experts and other stakeholders to formulate public health policy related to birth defects and genetic conditions.

Objective 4.2. Each year, seek out and establish new, or improve existing, collaborative relationships with partner organizations.

Objective 4.3. By December 2000, improve the public's Internet access to information about birth defects.

About Birth Defects

Birth defects are—

- The leading cause of infant mortality in the United States and the primary cause of more than 8,000 (20%) of the 40,000 infant deaths each year.
- A contributing cause in an additional 1,000 infant deaths each year.
- A leading cause of mortality among children from 1 to 4 years old.
- Responsible for about 30% of all pediatric admissions to hospitals.

Child Development, Disability, and Health

GOAL 1. Timely and accessible surveillance data on the prevalence of disability in general, developmental disabilities in particular, and secondary conditions across the life span.

Objective 1.1. By October 2003, publish the first in an annual series of regional prevalence rates for major developmental disabilities that are the basis for conducting public health research and making national policy decisions.

Objective 1.2. By September 2003, establish a multistate fetal alcohol syndrome (FAS) surveillance network to monitor the effectiveness of FAS prevention activities.

Objective 1.3. By December 2002, establish a national disability surveillance network to monitor the prevalence of disability and secondary conditions in the United States.

GOAL 2. Increased understanding of disability and its sequelae, including causes of and risk factors for developmental disabilities, risk factors for and protective factors against suboptimal child development, and risk factors for secondary conditions.



Objective 2.1. By October 2003, identify one or more preventable risk factors or promotable protective factors for cerebral palsy and autism that have major public health impact.

Objective 2.2. By September 2000, design and implement a longitudinal cohort study of people with identified limitations in various activity domains to track the natural course of selected secondary conditions and to determine risk factors for and protective factors against these conditions.

Objective 2.3. By December 2002, establish a common health-outcome indicator that will be used to assess the health status of people with disabilities and that can be compared with health-outcome indicators for the general population.

GOAL 3. Prevention of developmental disabilities and secondary conditions, promotion of optimal child development, and support of health-promotion activities for people with disabilities.

Objective 3.1. By March 2001, provide public health recommendations for preventing premature mortality and secondary conditions among young adults with developmental disabilities.

Objective 3.2. By October 2003, disseminate an interim report of research on intervention strategies for influencing parental behavior that promote optimal child development.

Objective 3.3. By March 2002, report progress toward the Healthy People 2010 objective to increase to 100% the proportion of newborns who are screened for hearing loss by 1 month of age, have diagnostic follow-up by 3 months, and are enrolled in appropriate intervention services by 6 months.

Objective 3.4. By December 2003, implement a strategy to minimize the number of alcohol-exposed pregnancies.

Objective 3.5. By December 2003, implement, at a selected site, a health-communication campaign that maximizes awareness and knowledge among women and among health-care providers about alcohol use during pregnancy.

Objective 3.6. By December 2003, fund at least one clinical study to prevent secondary conditions among children with FAS, using identified strategies from the Working Group on Preventing FAS Secondary Conditions.

Objective 3.7. By July 1999, implement a health-communication plan for providing people with disabilities access to quality scientific and program information.

Objective 3.8. By December 2000, ensure that quality information is used to guide the Division's extramural programs.

Child Development and Disabilities

- In the United States, 17 % of children have one or more developmental disabilities (such as learning disabilities, autism, cerebral palsy, or hearing impairment).
- In the United States, 49 million people—20% of the total US population—have a disability.
- More than 9 million Americans have functional limitations so severe that they cannot work, attend school, or maintain a household.
- An additional 2 million people live in chronic-care settings as a result of functional limitations related to a disabling condition.
- More than \$170 billion is spent per year in overall direct and indirect costs (including medical expenses and lost workdays) related to disability.

GOAL 4. Leadership in the areas of disability, developmental disabilities, and child development through collaborative relationships.

Objective 4.1. By June 2003, establish up to five Centers of Excellence for research in developmental disabilities and child development.



Objective 4.2. By October 2001, implement a comprehensive training program to increase the capacity of CDC staff and other public health professionals to address disability issues.

Objective 4.3. By December 2003, establish and maintain ongoing partnerships with relevant agencies and organizations to enhance surveillance, prevention, and intervention activities for FAS and other developmental disabilities.

Objective 4.4. By July 2002, engage outside organizations in developing and promoting research and prevention activities related to disabilities and secondary conditions.

Objective 4.5. By December 2002, identify activities through which each of CDC's centers, institutes, and offices can improve the health of people with disabilities.



Emergency and Environmental Health Services

GOAL 1. Requests for assistance on natural and technologic disasters and terrorism from federal, state, local, and international partners are coordinated and responded to on behalf of CDC.

Objective 1.1. By December 1999, implement a CDC readiness-assessment program to ensure that participating emergency response programs successfully address public health issues during responses to disasters.

Objective 1.2. By December 1999, promote public health preparedness and response by responding to requests for information, making presentations, and preparing publications on the topic.

Objective 1.3. By September 2000, enhance emergency public health and medical preparedness through training, demonstration activities, and protocol development.

Objective 1.4. By September 2001, develop and implement appropriate recovery protocols and programs to address the impact of emergencies and disasters due to radiation contamination.

Objective 1.5. By January 2002, ensure effective and efficient coordination of response and preparedness activities related to natural disasters or special events and to actual or threatened releases of chemical agents, oil, radiation, or nuclear agents into the environment.



Children outside their tent homes at a refugee camp in Bojane, Macedonia.

GOAL 2. Technical assistance and scientific guidance is provided in response to requests from partner organizations working in complex emergencies in order to reduce mortality and morbidity among emergency-affected populations worldwide.

Objective 2.1. Beginning in 1999, develop and complete at least one major operational research project every 2 years that is aimed at developing more effective public health and nutrition interventions for emergency-affected populations.

Objective 2.2. Beginning in 1999, provide international leadership for the scientific basis of the public health response to complex emergencies, by developing of technical guidelines and participating in developing international public health standards related to this issue.

Responding to Emergencies

- The breakdown of the public health infrastructure and disruption of services that often occur in the wake of a natural disaster can lead to disease outbreaks and other adverse health effects.
- CDC responds to emergency situations throughout the United States and the world to assist in providing rapid health assessments and effective public health actions.
- In the past five years CDC has responded to more than 50 large-scale emergencies, including the floods in the Midwest, famine in North Korea, tornadoes in Oklahoma, and refugee crises in Africa and the Balkans.

Objective 2.3. By December 2000, develop tools and methodologies for conducting immediate response activities in order to respond promptly and effectively to requests for direct technical assistance from partner organizations working in complex emergencies.

Objective 2.4. By December 2001, increase partnerships with other organizations involved with international complex emergencies, including other U.S. government agencies, UN agencies, and nongovernmental organizations.

Objective 2.5. By December 2003, plan, implement, and evaluate training courses and workshops to help strengthen the emergency public health technical capacity of both CDC and key external partners.

GOAL 3. National leadership in designing, establishing, implementing, and evaluating a national pharmaceutical stockpile.

Objective 3.1. By September 1999, implement an operational plan for managing and maintaining a national pharmaceutical stockpile for civilians.

Objective 3.3. By March 2000, develop and disseminate appropriate training and or informational material to end users of a national pharmaceutical stockpile.

Objective 3.2. By September 1999, purchase necessary pharmaceuticals, supplies, and equipment required for initially establishing the national pharmaceutical stockpile for civilians.

GOAL 4. The health and safety of workers and the general population during the destruction of the nation's chemical weapons is ensured.

Objective 4.1. By July 2000, enhance by 15% our capability of providing technical assistance, monitoring, and oversight regarding the public health issues associated with retrieval, transportation, and ultimate disposal of recovered or buried chemical agent munitions.

Objective 4.2. By January 2001, establish internal resources to address public health issues associated with new and emerging

technologies (other than incineration) designed to dispose of stored lethal chemical munitions.

Objective 4.3. By January 2002, develop an increased capacity to provide technical assistance, monitoring, and oversight regarding public health issues associated with existing and newly constructed disposal facilities and to provide for the safe closure of decommissioned disposal sites.

GOAL 5. The effective delivery of environmental health services is increased by collaborating closely with communities and domestic partners, particularly with state and local health agencies.

Objective 5.1. Beginning in 1999, start to implement programs to increase the delivery of information, technical assistance, and training to state and local environmental health professionals.

Objective 5.2. By April 1999, establish a unit within Environmental Health Services Branch to oversee the Center's programs related to food safety, including 1) conducting training and supporting needs-assessment training programs 2) developing methods to collect and catalog data on risk factors leading to food-borne outbreaks, and 3) standardizing methods for conducting environmental investigations triggered by outbreaks or by surveillance showing unacceptable environmental risk.

Objective 5.3. By June 2000, implement the Protocol for Assessing Community Excellence

in Environmental Health (PACE EH) in the nation's city and county health departments.

Objective 5.4. By September 2000, establish a unit to address water or sanitation issues appropriate for local environmental health agencies for training, planning, support, and direct technical assistance as needed.

Objective 5.5. By October 2001, establish a National Environmental Health Service Corps to provide environmental public health services, including consultation and technical assistance, to state and local environmental health agencies.

Objective 5.6. By 2003, establish programs that will lead to improved preparation and standards for employment in the environmental health professional work force.

GOAL 6. The health and safety of passengers traveling on ships that call on U.S. ports is ensured.

Objective 6.1. By June 1999, revise and distribute construction guidelines for vessels that will ensure environmentally safe water, food preparation, and sanitation systems.

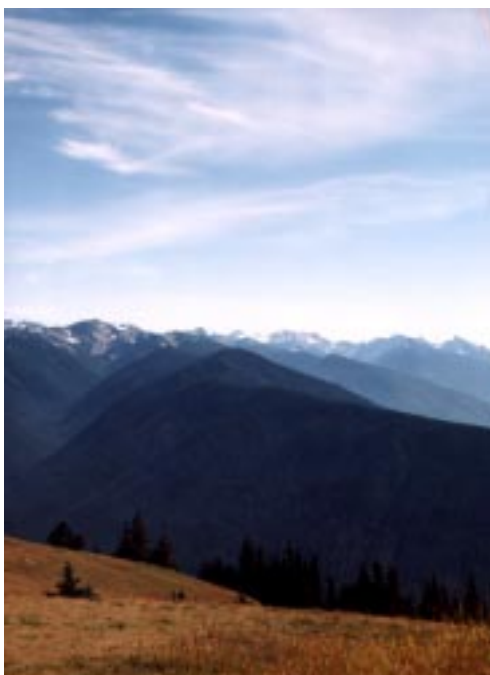
Objective 6.2. By September 1999, improve vessel sanitation programs such that the risk for outbreaks of gastrointestinal disease will be reduced to the lowest practicable levels.

Objective 6.3. By September 1999, develop and distribute manuals that describe protocols for disease-outbreak investigations.

Objective 6.4. By December 1999, publish a revised Vessel Sanitation Program Operations Manual.



GOAL 7. The health and safety of visitors in the national parks of the United States and its territories is ensured.



Hurricane Ridge, Olympic National Park, Washington.

Objective 7.1. By October 1999, ensure that National Park Service (NPS) facilities comply with applicable federal, state, and local public health laws, regulations, ordinances, and applicable Department of Interior and NPS public health policies, orders, and directives.

Objective 7.2. By October 1999, provide ongoing public health training to NPS park-based personnel on food safety, hazardous waste operations, potable water treatment, wastewater treatment and disposal, and occupational health.

Objective 7.3. By December 2000, implement system-wide illness-reporting procedures in the national parks.

Environmental Hazards and Health Effects

GOAL 1. Diseases related to environmental exposures will be monitored, prevented, reduced, or eliminated.

Objective 1.1. By December 2002, develop a comprehensive environmental health-data program that consolidates environmental disease surveillance, tracks Healthy People 2010 objectives, and can be integrated with other health-data systems.

Objective 1.2. By December 2003, increase to 20% the percentage of Medicaid-enrolled children screened for elevated blood lead levels.

Objective 1.3. By December 2004, document reductions in key indicators of asthma-related morbidity in targeted communities by establishing asthma-prevention and surveillance programs.

Asthma facts and figures

Asthma—

- Affects 15 million people in the United States, including almost 5 million children.
- Cost \$6.2 billion in 1990, and the cost is increasing dramatically as the number of people with asthma increases.
- Accounts for 10 million missed school days and 4000-5000 deaths per year.

GOAL 2. Response to emerging environmental threats, public health emergencies and disasters (with appropriate health investigations, policy guidance, and prevention recommendations) is ensured.

Objective 2.1. By June 2000, report to Congress the results of the evaluation of nuclear weapons' testing fallout and the proposed public health and research activities under way to address potential human health risks from this fallout.

Objective 2.2. By September 2000, provide epidemiological responses to, investigations of, or needs assessments about emerging environmental health threats and natural and technologic disasters for up to 10 new requests annually; and determine the effectiveness of these activities in state and local agencies and foreign governments.

Objective 2.3. By December 2000, produce and disseminate public-health recommendations and policy guidance to reduce the health impact of up to 10 emerging environmental health threats or natural and technologic disasters annually.

*Objective 2.4. By September 2002, complete analysis of surveillance data to determine the public health significance of Possible Estuary-Associated Syndrome (PEAS) in targeted states, and complete cohort studies to evaluate the possible association between human health and the presence of *Pfiesteria piscicida* in estuaries.*

GOAL 3. Innovative technology and new methodological approaches are used to advance the environmental hazards and health effects research and programs.

Objective 3.1. By December 2001, establish partnerships that effectively promote activities to prevent human exposure to environmental health hazards, such as unhealthy home environments, pesticides, radiation, and United States-Mexican border and international environmental health hazards.

Objective 3.2. By December 2002, incorporate prevention-effectiveness analysis into the development of policy guidance and prevention recommendations.

Objective 3.3. By December 2003, establish a research program that develops and applies new methods to quantify the health risks from radiation and other environmental contaminants in human populations.

Objective 3.4. By December 2003, use health communication appropriately and effectively to address key environmental hazards and emerging threats.



Testing children for lead poisoning along U.S.-Mexico.

Laboratory Sciences

GOAL 1. Effective laboratory response for chemical emergencies, including chemical terrorism.

Objective 1.1. Each year, as appropriate, provide prompt, state-of-the-art laboratory assistance to health workers responding to emergencies (including chemical terrorism) caused by exposure to toxic substances.

Objective 1.2. By 2002, develop a Rapid Toxic Screen (RTS) to assess human exposure to 150

toxic substances; thereafter, add appropriate toxic substances to the RTS on the basis of the risk of their being used in terrorist acts.

Objective 1.3. By 2002, establish four regional laboratories to provide additional capacity to handle a large-scale terrorist incident involving the use of toxic chemicals.

GOAL 2. Effective laboratory collaboration for health investigations of populations exposed to toxic substances and diseases likely to be caused by toxic substances.

Objective 2.1. By 2002, provide laboratory collaboration to local and state health departments, countries, and other federal agencies for 60 health studies of populations exposed to toxic substances or to diseases likely to be caused by toxic substances.

Objective 2.2. By 2003, adapt the RTS so that it can be efficiently used for both emergencies and ongoing health studies.

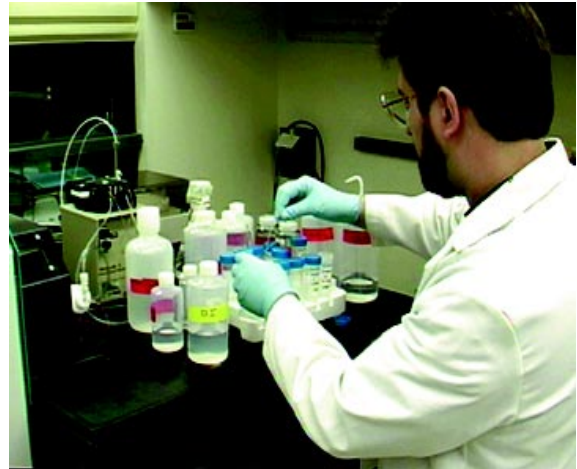


GOAL 3. The U. S. population is monitored for exposure to priority toxic substances.

Objective 3.1. By 2000, determine the exposure of the U.S. population to 20-25 priority toxic substances.

Objective 3.2. By 2001, determine the exposure of the U.S. population to a total of 40-45 priority toxic substances.

Objective 3.3. By 2003, annually measure the exposure of the U.S. population to a total of 70 priority toxic substances.



GOAL 4. New biomonitoring measurements for toxic substances not yet measured in people are developed, and existing methods are improved by making them cheaper, faster, and more sensitive, specific, and rugged.

Objective 4.1. Beginning in 1999 and continuing thereafter, improve at least 10 biomonitoring measurements per year.

Objective 4.2. By 2002, develop biomonitoring methods of measuring 40 additional toxic substances so that state-of-the-art laboratory methods can be used to prevent avoidable environmental disease.

Biomonitoring

- Biomonitoring is the assessment of individual human exposure by measuring toxic substances in human specimens, such as blood or urine.
- Biomonitoring measurements tell us who has been exposed, what they have been exposed to, and how much exposure they have had.
- Biomonitoring is the only way to measure the body burden of toxic substances in people.

GOAL 5. The diagnosis, treatment, and prevention of chronic diseases is improved through application of laboratory technology.

Objective 5.1. By 2000, establish a National Neonatal Disease Reference Laboratory.

Objective 5.2. By 2000, increase access to CDC's DNA Bank so the public health community can better understand genetic risk factors for disease and the prevalence of these risk factors within the U.S. population.

Objective 5.3. By 2000, develop and maintain quality-assurance and proficiency-testing capabilities required for integrating genetic testing into national and state disease-prevention programs.

Objective 5.4. By 2002, establish a National Diabetes Reference Laboratory.

Objective 5.5. By 2002, improve our understanding of the nutritional causes of disease by developing five new methods of measuring nutritional factors (such as vitamins and micronutrients) and collaborating in eight health studies.

Objective 5.6. By 2002, establish a National Cardiovascular Disease Reference Laboratory.

Objective 5.7. By 2002, improve our understanding of disease risk associated with exposure to tobacco smoke (including environmental tobacco smoke) and cigarette additives by developing or improving 23 methods for measuring tobacco smoke and cigarette constituents and applying these methods in 12 health studies.



Center-wide Goals

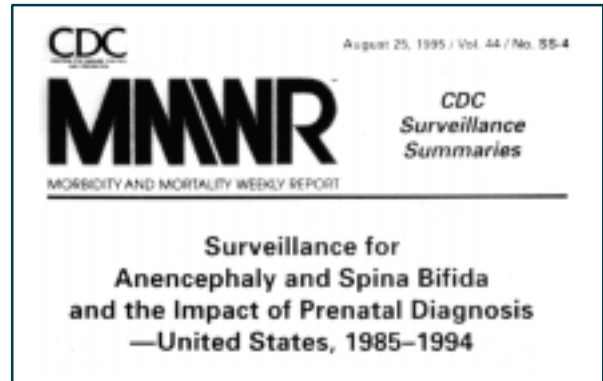
GOAL 1. NCEH is recognized for scientific excellence throughout CDC, DHHS, and the public health community.

Objective 1.1. By October 2000, enhance the quality of NCEH research by establishing a peer review process.

Objective 1.2. By October 2001, publish at least five NCEH products in highly respected, peer-reviewed scientific or medical journals each year.

Objective 1.3. By October 2001, increase by 15% the number of publications, guidelines, MMWR articles, surveillance summaries, and other NCEH products completed each year.

Objective 1.4. By October 1999, make a listing of all NCEH projects available on both the Intranet and the Internet.



GOAL 2. All NCEH scientists (and projects) comply with regulations for protecting human research subjects, and scientists understand the underlying principles governing the protection of human subjects.

Objective 2.1. By January 2000, train all NCEH scientists in the protection of human research subjects and in scientific ethics.

Objective 2.2. By October 2001, decrease by 50% the time required to gain final approval for projects from the CDC Institutional Review Board.

GOAL 3. NCEH has developed a research agenda, with established priorities, that is consistent with and parallel to an overall CDC research agenda and that follows recommendations established by NCEH/OD.

Objective 3.1. By October 2000, ensure that the strategic plans of all branches and divisions include a research agenda with established priorities.



GOAL 4. NCEH health-communication and media-relations efforts contribute to enhanced public health and recognition of CDC as the agency watching over the public's health in relationship to the environment.

Objective 4.1. By December 2003, demonstrate that health-communication efforts in at least three NCEH programs have contributed to a positive change in health behavior in vulnerable populations.

Objective 4.2. By December 2003, ensure that the public at large can recognize five NCEH programs for their positive accomplishments.

GOAL 5. NCEH workforce reflects the diversity of the civilian labor force.

Objective 5.1. By December 2003, ensure that the NCEH workforce reflects of the nation's civilian labor force in terms of race, ethnicity, sex, and disability status.

Objective 5.2. By July 1999, incorporate the quarterly evaluation of progress toward achieving workforce diversity into the NCEH strategic planning process.

Objective 5.3. By April 2000, identify and use appropriate hiring mechanisms for recruiting a more diverse workforce.



Objective 5.4. By July 2000, increase the pool of qualified diverse candidates for vacant positions by augmenting HRMO efforts.

Objective 5.5. By December 2003, ensure that the composition of NCEH's temporary and trainee staff also reflects the composition of the civilian labor force by race, ethnicity, sex, and disability status.

Objective 5.6. By December 2001, assess NCEH's progress toward achieving Objectives 5.1 and 5.5.

GOAL 6. NCEH programs and activities include community involvement.

Objective 6.1. By July 1999, develop policy guidelines for programs and activities to follow when working with communities and the public.

Objective 6.2. By October 2000, develop a reference document to help programs and activities engage communities.

GOAL 7. NCEH minority-health activities are increased over FY1998 levels.

Objective 7.1. By June 1999, prepare a baseline document that assesses the level of minority-health activities for FY 1998.

Objective 7.2. By August 1999, develop a coordinated NCEH minority-health priority document that programs and activities can use to improve their ability to address minority-health issues and concerns.

Objective 7.3. By December 2000, integrate minority-health priorities into the annual budgetary initiative process and into planning processes for programs and activities.

Objective 7.4. By October 2000, ensure that minority academic institutions receive at least 9% of the extramural funds going to academic institutions.

GOAL 8. NCEH data (e.g., extramural funding—grants, cooperative agreements, contracts; intramural funding—personnel, training, and travel) are accessible via management information systems and the CDC Intranet.

Objective 8.1. By December 1999, assemble pertinent reference materials, attachments, and other material to be used on link sites to the NCEH/OPOM Intranet site.

Objective 8.2. By November 1999, develop a coordinated management information system to provide data to all employees within NCEH.

GOAL 9. Long-term facility planning aimed at providing a safe, productive workplace for NCEH staff is conducted.

Objective 9.1. By March 1999, establish monthly meetings with CDC facility contacts to monitor the availability of office and laboratory space and to establish a positive relationship with these contacts for discussing NCEH's facility needs.

Objective 9.2. By October 1999, collect data about potential growth over the next 5 fiscal years from program offices, and analyze required space and security needs.

Objective 9.3. By October 2000 and annually thereafter, revise the 5-year facility plan to reflect changes in program requirements.

GOAL 10. Extramural program management activities throughout NCEH are thoroughly assessed.

Objective 10.1. By August 1999, conduct a review of CDC's procedures and policies in order to establish criteria for managing NCEH's extramural program activities.

Objective 10.2. By November 2000, review NCEH programs to determine how they are managing their extramural activities.

Compare what the divisions are actually doing (the practice) with what they should be doing (the procedures and policies). If there are areas of deficiency, document them in a report to the Associate Director of Program Operations and Management, NCEH. Make recommendations for areas needing improvement or change.

GOAL 11. NCEH works in collaboration with international partners to improve global health.

Objective 11.1. By 2003, help develop an effective international program to reduce childhood lead poisoning worldwide.

the global disease burden associated with micronutrient deficiencies, including iodine, iron, Vitamin A, and folate deficiencies.

Objective 11.2. By 2003, collaborate on scientific study, technical consultation, and communication in order to focus on human health issues affected by global concerns about water, sanitation, and hygiene.



Objective 11.5. By 2003, develop technical methods for use by and provide guidance and assistance to emergency workers preparing for and responding to natural or technologic disasters, complex humanitarian emergencies, and bioterrorism.

Objective 11.3. By 2003, collaborate on scientific studies and communications to address emerging urban environmental health threats globally.

Objective 11.6. By 2003, strengthen NCEH's own global health infrastructure and its external infrastructure development activities.

Objective 11.4. By 2003, contribute to reducing

GOAL 12. NCEH strategic priorities are clearly defined, articulated, and disseminated both inside and outside of NCEH.

Objective 12.1. By January 2, 2001, complete the annual 5-year strategic planning update.

Objective 12.3. By December 2002, address all appropriate Healthy People 2010 issues.

Objective 12.2. By October 2000, implement formal strategic planning training within NCEH.

GOAL 13. Program development efforts of NCEH provide necessary support to current and emerging priorities of the Center.

Objective 13.1. By January 2000, implement strategies for gaining financial support for the top five NCEH priorities.

Objective 13.2. By June 2000, interact with external foundations through a formal, prioritized NCEH policy.

GOAL 14. Prevention-effectiveness and program-evaluation activities are integral to NCEH programs and activities.

Objective 14.1. By March 2000, implement formal training in prevention effectiveness.

Objective 14.2. By September 2001, ensure that at least 50% of NCEH programs have an operational prevention-effectiveness and program-evaluation component.

GOAL 15. Legislative issues concerning NCEH are addressed in an appropriate, consistent, and expeditious manner.

Objective 15.1. By October 1999, identify NCEH legislative priority areas, and implement mechanisms to ensure both an internal and an external focus on the issues.

Objective 15.2. By September 2002, make 12 issue-specific At-A-Glance information sheets and 50 state-specific fact sheets available for use by internal and external audiences.



GOAL 16. NCEH support activities are addressed in an appropriate, consistent, and expeditious manner.

Objective 16.1. By June 2002, the Advisory Committee to the Director, NCEH will provide appropriate guidance to the Director.

Objective 16.3. By August 2001, complete OMB packages from NCEH within 60 days of submission.

Objective 16.2. By March 2001, clear 90% of controlled correspondence routed through NCEH within 30 days.

GOAL 17. NCEH programs integrate genetics into all appropriate activities.

Objective 17.1. By 2000, develop and implement an NCEH-based strategic plan for integrating genetic information into 1) prevention research on environmental diseases, 2) population-based epidemiologic studies of birth defects and childhood diseases, and 3) laboratory services associated with pediatric or chronic diseases.

Objective 17.2. By 2001, conduct policy research on strategies for ensuring that genetic testing and genetic information are being used appropriately in public health programs and throughout the health care system.



Objective 17.3. By 2000, implement five extramural prevention-research projects through jointly funded academic, public, and private community-based partnerships.

Objective 17.4. By 2002, integrate genetic

knowledge into national disease-specific, disease-prevention programs (e.g., asthma- or arthritis-prevention programs), and establish 14 state disease-prevention programs that use genetics to target interventions.



Objective 17.5. By 2001, develop capabilities of each CDC center, institute, or office on the basis of the NCEH model strategic plan that integrates genetic knowledge into public health research and programs, and establish a coordinated state genetics and public health capacity in 25 states.

Objective 17.6. By 2002, develop a national communication plan for informing professional audiences about developments in genetics and public health, and develop strategies for informing the public about appropriate uses of individual genetic information.