



Maryland Arthritis State Plan

2006-2010

Maryland Arthritis Project
Maryland Department of Health and Mental Hygiene
Center for Health Promotion, Education,
and Tobacco Use Prevention

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May 31, 2006

Dear Colleague:

It is my pleasure to share with you a copy of our *Maryland Arthritis State Plan 2006-2010* funded through a Cooperative Agreement with the Centers for Disease Control and Prevention (CDC). This document represents a collaborative effort between the Maryland Department of Health and Mental Hygiene and its partnering agencies.

In 1999, the Maryland Department of Health and Mental Hygiene (DHMH) was selected as one of 30 state health departments by the CDC to establish a statewide monitoring effort to reduce the burden of arthritis in the state. An initial draft of a state plan was developed with CDC funding and was sent to CDC in 2001. This report was developed based on the initial report with additional information obtained through the BRFSS, Hospital Discharged Surveys and the Maryland Health Care Commission's Medical Database.

Since July 2004, I have had the honor of serving as the Chair of the State Advisory Council on Arthritis and Related Diseases. It has been a pleasure working with the devoted members of the council on this arthritis state plan. I want to express my deep appreciation to the DHMH and its partnering agencies in their efforts to establish an arthritis monitoring system, provide intervention programs, and promote arthritis awareness in the state. This Maryland State Strategic Plan represents continuous efforts by DHMH and all partnering organizations and individuals to reduce the occurrence of and disability caused by arthritis, and to improve the quality of life for over one million Marylanders who have been diagnosed with some form of arthritis.

I hope you will find this report of benefit to you and your associates, and I look forward to staying actively involved with this important endeavor.

Sincerely,

Howard Hauptman, M.D., Chairman
Maryland State Advisory Council on
Arthritis and Related Diseases

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Maryland Arthritis State Plan 2006-2010

Introduction

Arthritis and related diseases encompass more than 100 diseases affecting joints, surrounding tissues, and other connective tissues.¹ The Centers for Disease Control and Prevention (CDC) describe the national arthritis burdens as follows:

Number of Persons with Arthritis

Based on 2002 National Health Interview Survey data, forty-three million Americans report that a doctor told them they have arthritis or other rheumatic conditions.²

Cost of Arthritis

The total cost of Arthritis and Other Rheumatic Conditions (AORC) in the United States in 1997 was \$86.2 billion, which was approximately 1 percent of the 1997 U.S. gross domestic product.

- \$55.1 billion were direct costs (i.e., due to medical expenditures)
- \$35.1 billion were indirect costs (i.e., due to work loss)

Total costs attributable to AORC, by state, ranged from \$121 million in Wyoming to \$8.4 billion in California. In Maryland, the 1997 total costs were estimated to be \$1.5 billion.³

Quality of Life Impact of Arthritis

In 1999, arthritis was the leading cause of disability among U.S. adults.⁴ The impact of arthritis on individuals is significant. Almost 38 percent (16 million) of the 42.7 million adults with doctor-diagnosed arthritis report limitations in their usual activities due to their arthritis.² In addition to activity limitations, 31 percent (8.2 million) of working age adults with doctor-diagnosed arthritis report being limited in work activities due to arthritis (see Table 1).

Table 1.
Percent of Adults with Doctor-Diagnosed Arthritis with
Activity and Work Limitations in 2002

Limitation type	Percent of Adults with Doctor-Diagnosed Arthritis	Number of Adults with Doctor-Diagnosed Arthritis (in Millions)
Activity limitation	37.6%	16
Work limitation	30.6%	8.3

Future National Burden of Arthritis

With the aging of the U.S. population, the prevalence of arthritis is expected to increase in the coming decades. By the year 2030, an estimated one quarter of the projected total adult population or 64.9 million adults aged 18 years and older will have doctor-diagnosed arthritis, compared to the 42.7 million adults in 2002 (see Table 2). Two-thirds of those with arthritis will be women. These estimates may be conservative, as they do not account for the current trends in obesity.⁵

Table 2.
Projected Prevalence of Doctor-Diagnosed Arthritis,
US Adults Aged 18+ Years, 2005-2030

Year	Number of adults with doctor-diagnosed arthritis (in the millions)		
	Men	Women	Total
2005	18,175	28,091	46,265
2010	19,801	30,345	50,146
2015	21,365	32,525	53,889
2020	22,851	34,650	57,501
2025	24,386	36,854	61,240
2030	25,869	39,052	64,921

The Disease

A. What is arthritis?

“Arthritis,” as used in this document and in the *National Arthritis Action Plan*,¹ includes a variety of rheumatic conditions in addition to diseases of the joints. As such, this use of the word “arthritis” encompasses more than 100 diseases and conditions that affect joints, the surrounding tissues, and other connective tissues. These diseases and conditions include osteoarthritis, rheumatoid arthritis, lupus, juvenile rheumatoid arthritis, gout, fibromyalgia, bursitis, rheumatic fever, and Lyme Disease. Three of the most common forms of arthritis are osteoarthritis, rheumatoid arthritis, and fibromyalgia.¹

B. Risk Factors for Arthritis

There are certain risk factors known to be associated with arthritis. Three of these factors are *non-modifiable*: female sex, older age, and genetic predisposition.

- In Maryland, the prevalence of arthritis is somewhat higher for women than for men, after accounting for the higher average age of women.⁶

- Arthritis prevalence is higher in older age. In 2003, Maryland estimated 54 percent of adults age 65 or older had a doctor diagnosis of arthritis.⁶ The number of elderly (65+ years old) will reach 683,835 in Maryland by 2010.⁷
- Genetic predisposition to arthritis is the third non-modifiable risk factor. Certain genes are known to be associated with a higher risk of some types of arthritis.¹

In addition, a few clear *modifiable* risk factors are also associated with increased risk of arthritis (1). These include:

- Obesity. According to Maryland Behavioral Risk Factor Surveillance System (BRFSS) 2003, about 40 percent of obese adults had a doctor diagnosis of arthritis, compared to 27 percent of overweight adults and 18 percent of adults neither overweight nor obese.⁶
- Joint injuries.
- Joint infections.
- Certain occupations (e.g., shipyard work, farming, heavy industry, and occupations with repetitive knee-bending).

Burden of Arthritis in Maryland

Arthritis is a highly prevalent disease in Maryland. According to the 2003 Maryland BRFSS, there were an estimated 1,067,690 adults with a *doctor diagnosis of arthritis* (26% of adults) and 680,267 additional adults with *chronic joint symptoms* that could possibly be undiagnosed arthritis (17% of adults).⁶

In Maryland, arthritis is more common among:⁶

- Older adults
- Women
- Persons who are overweight or obese
- Persons who are less physically active
- Persons with less formal education

In 2003, Maryland adults with doctor-diagnosed arthritis were *three* times more likely than those without arthritis to consider themselves in *fair or poor health* (rather than good, very good, or excellent health):⁶

Doctor-diagnosed arthritis:	25% with fair or poor health
No doctor-diagnosed arthritis:	8% with fair or poor health

In 2003, an estimated 479,591 adults had limitation of some activity due to joint symptoms. Of these, an estimated 201,656 had their *ability to work for pay affected by arthritis*. An additional 101,991 adults who did not report activity limitation due to joint symptoms reported that other consequences of their arthritis (for example, fatigue) affected their ability to work for pay.⁴

In the 2003 BRFSS, it was estimated that 479,591 Maryland adults had *activity limitation due to joint symptoms*. An estimated 58,432 adults had joint-related activity limitation but not chronic joint symptoms: this presumably represents acute (temporary) joint symptoms causing limitation at the time of the interview. An estimated 421,159 adults had chronic joint symptoms and activity limitation due to joint symptoms. This group with chronic joint symptoms and joint-related activity limitation was 29 percent of the estimated 1,436,673 adults with chronic joint symptoms.⁶

The medical and societal impact of arthritis and other rheumatic conditions has been characterized with respect to disability, ambulatory care, hospitalization and economic burden. The CDC estimated that arthritis and other rheumatic conditions cost Maryland a total of \$1.5 billion in 1997.⁸

The Maryland Health Care Commission data from 1998 revealed that osteoarthritis is the seventh most common reason for outpatient medical visits in Maryland among adults age 65 or older. It is the eleventh most common reason for such visits among adults age 51 to 64.⁹

In 2001, the number of hospital admissions with a primary diagnosis of osteoarthritis was 8,320 (which was 1.3% of the 625,569 admissions in the state). These admissions generated \$122,522,773 in hospital charges (not including physician fees). These charges accounted for 2.6 percent of the Maryland total hospital admission charges of \$4,646,086,268. The reason that 1.3 percent of admissions generates 2.6 percent of charges is that the average cost per osteoarthritis admission is \$14,726 (compared to \$7,427 average for all admissions). More than 90 percent of admissions with a primary diagnosis of osteoarthritis are for hip or knee replacement surgery (which explains the higher average cost per admission).¹⁰

Disparity between White and Minority Populations:

In national data, arthritis prevalence is similar for Whites and African Americans, lower for Asian/Pacific Islanders than for Whites, possibly higher for American Indian/Alaskan Natives than for Whites, and lower for Hispanics than for Whites.¹¹ In Maryland data, low numbers of Asians, Pacific Islanders, Native Americans, and Hispanics in the 2003 BRFSS have precluded age-adjusted or age-stratified comparisons for these groups with Whites.

In Maryland, stratifying for age, the prevalence of arthritis for Whites and African Americans is similar.⁶ Despite this similarity, a higher percentage of African Americans age 45 to 64 report arthritis limiting their work for pay (18%) compared to Whites (12% report such limitation).⁶

In Maryland, compared to Whites, African Americans have lower rates of total joint replacement, a surgical procedure highly successful in reducing the impact of arthritis in persons with severe pain or disability.¹⁰

What has been done to lessen the burden:

Working closely with partnering agencies, DHMH has established some baseline data on the prevalence of arthritis in Maryland, provided resources to the providers, and educated the public to improve the quality of life for patients with arthritis in order to reduce the burden of the disease in the state.

- A. Build surveillance systems to monitor situation
 1. *BRFSS* (Behavioral Risk Factor Surveillance System): The DHMH has included the CDC arthritis module in BRFSS as a standard component to monitor the prevalence of arthritis in Maryland.
 2. *NHIS* (National Health Index Survey): The NHIS data was used to complement the BRFSS data, and to compare Maryland's health status with that of other states.
 3. *Hospital Discharge Survey*: The DHMH used the Hospital Discharge Survey to monitor the cost of hospitalization due to arthritis and related conditions and compare the disparity in joint replacement surgeries.

- B. Provider Education
 1. The DHMH has provided resource materials to professional organizations such as Maryland Family Physician Academy and American Occupational Therapist Association (Maryland Chapter) at their annual conferences. The DHMH has also put articles in professional organization's newsletters about the arthritis project and available resources.
 2. The DHMH has displayed at the Maryland Occupational Therapy Association's and the Arthritis Foundation's annual conference, and sent materials to the Maryland Family Physician Academy's annual conference. The aim was to provide educational materials to their members for dissemination to their patients.
 3. MedChi has established a Website link to the Maryland Arthritis Project and has published an article on the project and materials available for their members.
 4. The DHMH was also working with the American Medical Women's Association on applying funding from a pharmaceutical company to educate physician volunteers to conduct arthritis seminars for physicians.

- C. Public Education
 1. Partnering with the Arthritis Foundation (Maryland Chapter), the DHMH conducted statewide radio campaign promoting physical activity as one of the management strategies for arthritis pain.
 2. The DHMH has also displayed posters on buses, metro and light rail cars to promote physical activities.
 3. Brochures and posters were sent to local health departments, area agencies on aging, managed care organizations, community health centers, local business and libraries for dissemination.
 4. The DHMH also worked with the Arthritis Foundation and the area agencies on aging in conducting workshops in the community to raise awareness of the disease and related conditions, and to promote the availability of self-management classes in the community.

5. The DHMH has been partnering with the Arthritis Foundation in training leaders in conducting evidence-based arthritis self-help classes in the community.
 6. The DHMH has provided mini-grants to local health departments and area agencies on aging to conduct evidence-based arthritis self-management classes in the community.
- A. Access to Services
1. Using the BRFSS information, the DHMH will continue to identify barriers to health care, i.e., financial, geographic, logistic, attitudes, or education.
 2. The DHMH has been working with the local health departments and area agencies on aging to disseminate educational materials and to conduct educational workshops and patient self-help classes. Efforts will be made to ensure these locations will operate on a continuous basis.
 3. The DHMH has conducted an assessment on resources available in the state. With the information, the DHMH will work with stakeholders to bridge the gaps that exist.
- B. Policy/Funding
- The Arthritis Foundation and advocates worked hard in getting the Maryland Assembly to pass the Arthritis Prevention and Control Act in 2002. This legislation calls upon the Maryland State Advisory Council on Arthritis and Related Diseases and the DHMH to develop and implement a statewide program to educate the public and health care providers about arthritis. The foundation continues its effort in asking the state to fund this statewide program. The DHMH will continue to work closely with the foundation and other partnering agencies to identify and support legislations that fund future program activities and research.

Existing Capacity

Current Partners and Resources:

- A. *Maryland State Agencies:*
Department of Health and Mental Hygiene
- *Epidemiology Disease Control Program* makes available the data on Lyme Disease.
 - *Maryland Health Services Cost Review Commission* assists in providing information from the Hospital Discharge Survey, Outpatient/Ambulatory Care, and Emergency Room database.
 - *Maryland State Council on Physical Fitness* provides assistance in the development, implementation and evaluation of physical activity programs designed to enhance and extend independence among individuals with arthritis.

- *Medical Assistance Administration* makes available data collected on recipients with arthritis and other rheumatic conditions, subject to the terms and conditions for release of Maryland Medicaid data.
- *Center for Preventive Health Services* provides collaboration between the arthritis project and other chronic disease projects. They also share the injury surveillance data and methods, facilitate contacts with data providers, interpret received data, and provide consultation regarding preventive interventions.
- *Center for Health Promotion, Education and Tobacco Use Prevention* provides technical support on program planning, implementation and evaluation. They provide expertise on outreach to the targeted population and health information dissemination.
- *Office of Minority Health* provides information on ethnic minority health issues, minority health organizations and minority media in the state.
- *Office of Primary Care Services* collaborates on developing a mechanism for collecting and compiling information on health disparities data by race, coordinates efforts to establish planning activities that integrate services, and implement programs linked to primary care entities.
- *State Arthritis Council* provides consultation to the arthritis project, and assists in developing and implementing the state plan to reduce the burden of arthritis and other rheumatic conditions.
- *Maryland Health Care Commission* provides information from the Maryland Medical Care Data Base (MCDB) which contains information on health care practitioner services provided to Maryland residents.

Maryland Department of Aging:

Supplies data and demographics about the senior population in Maryland. The local area agencies on aging partner with the local health departments in training leaders to conduct arthritis self-help courses, conducting workshops and disseminating information to older adults throughout the statewide senior network.

B. Other Partnerships and Resources:

American College of Rheumatology provides patient fact sheets, resources, legislative briefings, and maintains a list of their members in electronic format for visitors to search online.

American Physical Therapy Association (APTA, Maryland Chapter) invites the project to exhibit at their annual conference, and makes known to their members the availability of arthritis resources.

Arthritis Foundation provides fact sheets and other educational materials, resources, community educational programs for consumers and professionals, local chapter maintains a list of board certified rheumatologists.

Centers for Disease Control and prevention (CDC) the National Arthritis Action Plan provides facts, data, national strategies to reduce the burden of arthritis.

Johns Hopkins University provides consultation on arthritis data analysis in the existing surveillance systems.

Lupus Foundation provides current information, a research and resource library, and health forum.

Maryland Arthritis Research Center (MARC) conducts research in methods of prevention, more effective and safer treatment, and cures for arthritis and related rheumatic diseases.

National Center for Health Statistics (NCHS) maintains data from the Hospital Discharge Survey, National Health Interview Survey, and Trends in Health and Aging.

National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health (NIASM) provides fact sheets, brochures, health statistics, resources, research protocols, information on clinical research, patient enrollment, and results of clinical trials.

University of Maryland performs epidemiologic analysis on arthritis in the existing surveillance systems.

Future Activities and Time Line

Surveillance, Epidemiology & Prevention Research:

Goal: Measure and monitor the burden of arthritis in Maryland.

Objectives:

1. Analyze the burden by demographics by December 31, 2006, December 31, 2008 and December 31, 2010 using the BRFSS data.

Strategies:

- As additional years of data with the new (in 2002) arthritis questions become available, pool multiple years of BRFSS data to create larger numbers for analysis of burden on smaller racial and ethnic groups in Maryland.
- Pool multiple years of data to obtain sufficient sample size to allow for analysis across multiple strata of demographic variables.

2. Assess county disparity in joint replacement surgery. Establish baseline by June 30, 2006. Re-assess in 2008 and 2010.

Strategies:

- Continue to track the statewide disparity in joint replacement surgery that is particularly large for older African American men.
- Focus on the disparity in joint replacement surgery rates in older black males.
- Explore the feasibility of pooling years of data for analysis of other racial and ethnic groups.
- Seek to obtain the counts of joint replacement procedures being performed at the VA by race and ethnicity for addition to the numerators of the discharge data analysis.

3. Assess the public regarding their knowledge, attitudes, and beliefs about arthritis by December 31, 2006.

Strategies:

- Survey participants in self-help programs.
- Explore with universities in Maryland the possibility of having epidemiology students conduct patient surveys at rheumatology clinics/general medicine clinics and at other locations.

4. Track the availability of self-management classes offered in the community on an annual basis.

Strategies:

- Obtain number of classes offered by the DHMH mini-grant grantees.
- Obtain number of classes offered in the community from the Arthritis Foundation.

5. Track the number of people who attend arthritis self-management classes in the community on an annual basis.

Strategies:

- Obtain number of participants who attend the self-management classes offered by the DHMH mini-grant grantees.
- Obtain number of participants who attend the self-management classes offered in the community from the Arthritis Foundation.

6. Monitor the impact of self-management classes among participants on a regular basis.

Strategies:

- Administer pre- and post-test to participants who attend the self-management classes sponsored by the DHMH mini-grants.
- Conduct data analysis on the pre- and post-test results.

Communication & Education For The Public:

Goal: Increase awareness of arthritis, its impact, prevalence, and cost.

Objectives:

1. Increase state partnerships by 25 percent by 2010.

Strategies:

- Increase networking opportunities.
- Work with state agencies and other organizations that are having conferences and meetings, and get on the agenda.
- Explore the possibility of attending the Baltimore County Commission on Disabilities' regular meetings.

2. Educate the public by conducting a yearly media campaign and ongoing community workshops.

Strategies:

- Educate school nurses and teachers who work with juveniles.
- Educate the public by conducting campaigns. Work with pharmaceutical companies to help with promotions/posters.

3. Increase knowledge base of primary care physicians through regular grand rounds presentations.

Strategies:

- Educate physicians through grand rounds – small part of a presentation could be what the State is doing. Conduct one presentation in 2006, two in 2007 and three in 2008 and 2009 and four in 2010.

4. Using baseline data for 2005, increase the order of free educational materials by primary care physicians (to DHMH) 20 percent by 2008, and 25 percent by 2010.

Strategies:

- Provide articles in professional organization newsletters to make aware of available arthritis resources.
- Follow up with orders from the local health departments, area agencies on aging/senior centers, community health centers, managed care organizations and individual physicians.

5. Identify small business partners to promote arthritis awareness to their employees.

Strategies:

- Identify one business partner by 2007 to provide incentives to employees who show efforts to manage their arthritis through their medical providers and self-help management classes.
- Identify one business partner to sponsor worksite arthritis self-management classes by December 30, 2007.
- Increase one additional business partner in 2009.

6. Provide intervention programs including primary prevention of occupational arthritis in the community (ongoing).

Strategies:

- Identify contractors, brick-layers, etc. to offer educational programs in their 30's and 40's when they first experience arthritis symptoms (these workers usually have to retire early because of disabilities).
- Partner with other state agencies, unions, etc. to work with employers in the brick-laying industry to promote arthritis awareness.

7. Assess and increase the availability of arthritis self-management classes in the community (on-going).

- On-going evaluation of leader availability in the community and conduct leaders training as needed.
- Provide technical assistance and support to leaders who want to conduct self-management classes in the community.
- Identify facilities that might be suitable for self-management classes.
- Assist leaders' and organizations in promoting the self-management classes.

Programs, Policies, And Systems

Goal: Provide cost benefit analysis related to arthritis prevention activities to educate legislature, regulatory bodies, and third party payers.

Objectives:

1. Conduct cost benefit analysis by December 30, 2007. (Maryland Health Care Commission).

Strategies:

- Work with the commission on possibility of conducting the analysis.
- Review information received to target the legislature to show the need for sufficient funding.

1. Explore the possibility of insurance coverage (HB 845) (“self-management” education) by December 2007.

Strategies:

- Work with Medicaid to explore the possibility of coverage.
- Support legislation that covers the cost of self-management classes.

Evaluation of the State Plan

The DHMH State Arthritis Council will continue to work with partners to ensure that the plan is effectively carried out. Ongoing evaluation and modification of the plan might be necessary to ensure the feasibility of actions. The Council will conduct an annual review of the plan in the Fall of each year starting in 2007 to update and modify the plan. In 2008, the Council will review the effectiveness of the current plan and work with the Arthritis Project to plan for the next 3-5 year plan.

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Appendix A

MEMBERSHIP

The Advisory council consists of 15 members appointed by the Governor. Members may serve two four-year terms.

NAME	REPRESENTATION	EXPIRES
Jeanne Moyer	Hospital/Health Professional Outside the Major Metropolitan area	6/30/06
Anna Monias, MD	Health Care Industry	6/30/06
Lisa Roeder, LCSW-C	Hospital/Health Professional Outside the Major Metropolitan area	6/30/06
Michael Breeden, M.Ed., CRC	Vocational Rehabilitation Services	6/30/07
Raymond Flores, MD	University of Maryland School of Medicine	6/30/07
Janet Thompson	Arthritis Foundation	6/30/08
Allan Gelber, MD	Johns Hopkins University School of Medicine	6/30/08
Lisa Guderjohn	Department of Aging	6/30/08
Howard Hauptman, MD, Chairman	Maryland Lupus Foundation	6/30/08
Vacant	Home Health	
Vacant	Department of Disabilities	
Vacant	Pharmaceutical	
Vacant	Patient/Family Member	
Vacant	Patient/Family Member	
Vacant	Department of Health and Mental Hygiene	

GLOSSARY

What is Arthritis? Arthritis and related diseases encompass more than 100 diseases and conditions that affect joints, the surrounding tissues, and other connective tissues. The three most common forms of arthritis are osteoarthritis, rheumatoid arthritis, and fibromyalgia syndrome. Here is a listing of the most common forms of arthritis.

Ankylosing Spondylitis. This is an autoimmune disease that affects collagen structures, specifically the joints between the vertebrae of the spine. In most cases the cause is unknown.

Fibromyalgia Syndrome. This is a painful condition of muscles and muscle attachment areas throughout the body. In addition to muscle pain, common symptoms include sleep disorders, irritable bowel syndrome, fatigue, and headaches. Depression is another possible complication.

Gout. Gout is a metabolic disease characterized by recurrent attacks of acute arthritis due to the deposition of uric acid crystals in or around the joints.

Juvenile Arthritis. This comprises all childhood rheumatic conditions including juvenile rheumatoid arthritis, juvenile systemic lupus erythematosus, juvenile dermatomyositis, and juvenile scleroderma.

Lyme Disease. Lyme disease, caused by infection with bacteria carried by the deer tick, usually presents with a characteristic "bull's-eye" rash called erythema migrans, and other nonspecific symptoms such as fever, malaise, fatigue, headache, muscle aches, and joint pain.

Osteoarthritis. This is the most common form of arthritis. It is a degenerative joint disease, which most often affects the hip, knee, foot and hand. Degeneration of joint cartilage and changes in underlying bone and supporting tissues can lead to pain, stiffness, and difficulties of movement.

Osteoporosis. This disease is commonly confused with osteoarthritis. Osteoporosis is a bone disease in which the bones lose calcium, become brittle, and break more easily. While anyone can have this disease, it is most common in older adults, particularly women.

Rheumatoid Arthritis. This is characterized by chronic inflammation of the joint lining. The usual symptoms are pain, stiffness and swelling of multiple joints. It commonly affects the small joints of the hand and wrist, leading to nodules and deformities. Other symptoms include weakness, fatigue, fever, and anemia. Rheumatoid arthritis may also affect connective tissue and blood vessels throughout the body, causing inflammation in a number of organs, including the lungs and heart, and thus increasing a person's risk of dying from respiratory and infectious diseases.

Scleroderma. This is a chronic autoimmune disease of connective tissue also known as systemic sclerosis. It may affect multiple organs of the body including muscles, joints and bones. The cause is unknown.

Systemic Lupus Erythematosus. Systemic lupus erythematosus is a chronic autoimmune disorder in which the body's immune system, for unknown reasons, attacks the connective tissue causing inflammation. This leads to symptoms of unexplained fever, fatigue, inflamed joints, sensitivity to light, and rashes. In about 50 percent of persons with lupus, the disease progresses to affect the kidneys and nervous system.



Robert L. Ehrlich, Jr., Governor
Michael S. Steele, Lieutenant Governor
S. Anthony McCann, Secretary, Department of Health and Mental Hygiene

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The Department, in compliance with the Americans With Disabilities Act, ensures that qualified individuals with disabilities are given an opportunity to participate in and benefit from DHMH services, programs, benefits and employment opportunities.

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