

White Paper: An Update on Action on Obesity

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Executive Summary

Mayo Clinic is stepping up to the challenge – how to stop the obesity epidemic. The statistics, health problems and costs have been documented again and again.

- Obesity is associated with multiple complications such as diabetes mellitus, hypertension and cardiovascular disease.
- Obesity is responsible for more preventable deaths than any other health condition except tobacco use.
- The health care costs attributable to obesity are estimated to be greater than for any other health condition.

Mayo Clinic is taking action against obesity – beginning on its home turf. With more than 26,000 employees who work in Rochester, Minn., Mayo Clinic, along with its community partners, saw the opportunity to develop, implement and measure ways to stop the epidemic and foster a healthier workforce and community.

A first step was to form the Action on Obesity (AOO) task force, a group including representatives from Mayo Clinic and community organizations. The group first met in January 2004 to develop an action plan to effectively deal with obesity, particularly at the community level (Appendix I).

The task force adopted a bidirectional public health model to address the areas where change and action are needed: individual, work site, community and national.

The group planned and convened an Action on Obesity Summit to collect ideas for an optimal birth to end-of-life model to decrease the prevalence of obesity. Nearly 200 people attended the event on May 21, 2004, representing 50 entities including Mayo Clinic, government (Centers for Disease Control), academia, the food industry and businesses (Appendix I).

An overall action plan made up of top action items was compiled and distributed to attendees (Appendix II).

At a town hall meeting on Oct. 5, 2004, an action plan for combating obesity in the Rochester community will be presented to the public.

The next summit is scheduled for June 9 and 10, 2005 at Mayo Clinic. Attendees will review progress in the action plan.

Within Mayo Clinic – or anywhere – there's no quick fix to obesity. While many tactics listed in this document likely will help, they are not the whole solution. Mayo Clinic is looking at a broader focus on health and wellness with the possible establishment of a Health Promotion Initiative to coordinate health promotion activities within Mayo Clinic. Planning is under way.

Introduction

We live in a super-sized, high-calorie, car-driving culture – and it shows. The obesity epidemic is evident among Mayo Clinic patients, employees and the people who live in Rochester – just as it's evident throughout the country.

If we can find ways change the culture here, and to reduce the incidence of obesity, lessons learned will be valuable to the health of communities everywhere. The anticipated benefits will be healthier, more productive employees at Mayo Clinic and throughout our community, and potentially, reduced health care costs.

Background

Over the past two to three decades, there has been an unprecedented increase in the number of overweight and obese people in the United States and around the world.¹ The progressive rise in obesity shows no signs of slowing.² This increase has been observed in both genders, and all ages and ethnic groups.

Among children and adolescents, the prevalence of obesity has increased two- to threefold in the two decades prior to 2000.³

About 64 percent of Americans are overweight, and about 30 percent are obese, with a body mass index of more than 30 kg/m².⁴ The prevalence of extreme obesity, (body mass index of >40 kg/m²) has almost tripled in just 10 years, from 0.8 percent in 1990 to 2.2 percent in 2000.⁵

With obesity on the rise, the medical community anticipates an increase in the complications of obesity, including type 2 diabetes mellitus, hypertension, dyslipidemia, cardiovascular disease, obstructive sleep apnea, degenerative arthritis, non-alcoholic steatohepatitis, gallbladder disease and others. The prevalence of type 2 diabetes mellitus has increased from 4.9 percent in 1990 to 7.9 percent in 2000.²

In 2000, obesity was responsible for an estimated 400,000 deaths, compared to 300,000 in 1990.⁶ Obesity places second only to smoking as the leading preventable cause of death in the United States. In addition, obesity is a significant contributor to premature death. In Caucasians ages 20 to 30 with a BMI >45 kg/m², it has been estimated that obesity decreases life expectancy by 13 years in men and 8 years in women.⁷

Health care costs increase with increasing body mass index numbers,⁸ and obese adults ages 18 to 65 have 36 percent greater health care costs than those of normal-weight individuals.⁹ Direct costs have been estimated at \$54 billion per year and indirect costs as high as \$94 billion to \$117 billion.^{10,11,12,13} It's estimated that obesity is responsible for more health care expenditures than any other health condition, including smoking and problem drinking.⁸

Action on Obesity – Our Approach to the Problem

In January 2004, Mayo Clinic physicians and allied health staff, school representatives and public health officials from Rochester and Olmsted County met to discuss how to address the obesity epidemic within our communities.

The group decided to use a public health approach similar to a model recommended by Dr. Abby King to promote physical activity in communities.¹⁶ The public health approach suggests that activity promotion should be encouraged at the personal, interpersonal, organizational, environmental, institutional and legislative levels of intervention. From that theoretical framework, a bidirectional model was developed to decrease the prevalence of obesity by increasing physical activity and making nutritional changes. (Fig 1).

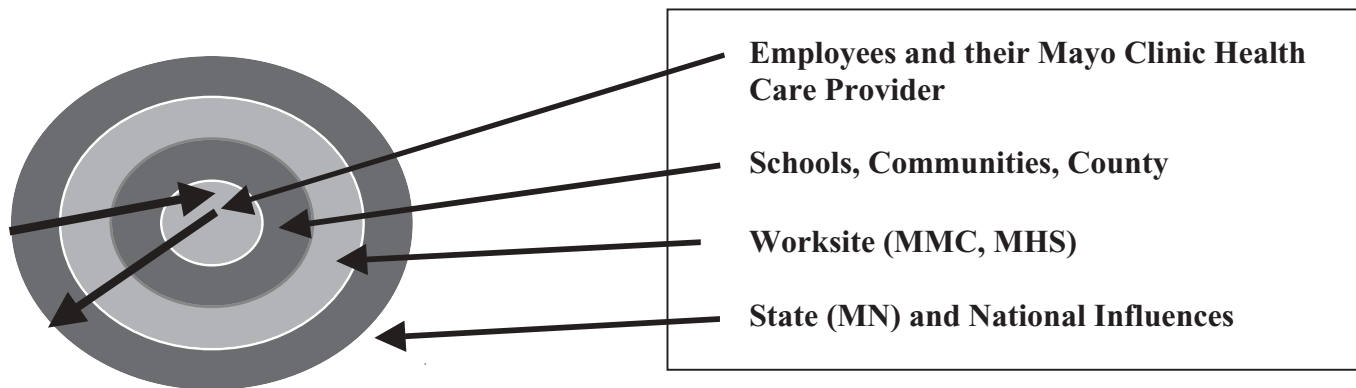


Figure 1- A Bidirectional Model to Decrease Obesity by Promoting Physical Activity and Healthy Nutrition at Key Levels of Influence (adapted for Mayo Clinic implementation)

Committee Updates

July 1, 2004

The Action on Obesity Task Force formed four committees corresponding to the four areas of influence in the bidirectional target model.

- **The Strategic Planning Committee**

This group has outlined a strategic plan for the Action on Obesity task force and is working on the proposed Health Promotion Initiative within Mayo Clinic.

The strategic plan is expected to be completed in August 2004. Its focus is Mayo Clinic Rochester, the Mayo Health System and surrounding communities.

- **The Individual and Health Care Provider Committee
(Within Mayo/Worksite Committee)**

This group focuses on the health of Mayo Clinic employees and seeks ways to increase healthy food choices and physical activity options on campus.

The group's objectives are to review current nutrition and activity programs; to educate and motivate employees to assume responsibility for healthy nutrition/activity choices and patterns on campus; and to develop new cost-effective programs.

The group is working on recommendations to:

- Improve nutrition and encourage increased physical activity.
- Educate employees about their health, using group classes when appropriate.
- Avoid duplication. Programs will be improved through collaboration, and improvement will be documented via outcomes-based research.

- **The Olmsted County/Minnesota Committee**

This committee is working to apply aspects of the Action on Obesity Summit action plan to Olmsted County. The county plan will be presented to the community at a town hall meeting Oct. 5, 2004.

At the meeting, participants will:

1. Learn about obesity and its effects on the individual and community.
2. See the model derived from the Action on Obesity Summit.
3. Discuss implementation of the adapted model in Rochester and surrounding communities.
4. Learn weight-loss and obesity prevention strategies for children and adults as well as options for changes in the environment.
5. Develop an action plan for Rochester and surrounding communities.

- **National Summit Planning Committee**

This committee was the driving force behind the Action on Obesity Summit on May 21, 2004, at Mayo Clinic. The summit drew national, state and local health care organizations, food industry representatives, and public health, education and community leaders together to collectively develop a plan to decrease obesity.

Action on Obesity Summit Summary

The summit challenged participants to bring specific, measurable ways to combat obesity. Many participants submitted written action items – abstracts of specific ways to promote healthful eating, increase exercise and other strategies to stop obesity.

Twenty participants presented action items during the summit. Another 21 abstracts were published in conference materials.

The summit included keynote addresses from Susan Blumenthal, M.D., the U.S. Assistant Surgeon General and Rear Admiral, on causes and prevention of obesity, and from Eric Finkelstein, Ph.D., a health economist at RTI International and Duke University, on the economic costs of the obesity epidemic. Sharonne Hayes, M.D., a Mayo Clinic cardiologist and director of Mayo Clinic Women's Heart Clinic, and Mary Wellik, MPH, public health director for Olmsted County, Minn., presented a theoretical community model for prevention. During breakout sessions participants focused on different levels of the bidirectional model. They discussed and ranked ways to address obesity. Those who attended continue to collaborate and share ideas via teleconferences and a Web site. *Mayo Clinic Proceedings*, Mayo Clinic's medical journal, will publish two articles on the obesity epidemic, summit recommendations and results.

The background, objectives, participating organizations and proceedings of the Action on Obesity summit are in Appendix I.

Some action items shared at the summit are part of the "solutions to the puzzle" (Appendix II) that were developed during summit breakout sessions. Breakout sessions corresponded to the model depicted in Figure 1.

Post-Summit Action Plan Overview

The post-summit action plan incorporates the suggestions from the four Action on Obesity committees. Many ideas are being evaluated for implementation.

Within Mayo/Worksite Recommendations

The Mayo Clinic Board of Governor's approved the Action on Obesity Action Plan on June 24. Various work groups are addressing detailed plans and proposals. Activities include:

- Develop and implement a multifaceted employee communications plan that could include: promoting education opportunities on nutrition and fitness; regular publication of education articles; ways to celebrate successes; and ways to share best practices.
- Ensure that nutritious food choices and correct portion sizes are available throughout the campus – cafeterias, express eating areas, vending, and catered meals. Label food choices with calorie and fat content and how many minutes of walking are required to burn the calories.
- Encourage commercial food and drink vendors on or near the Mayo campus to offer healthful foods.
- Find ways to make walking more appealing, such as:
 - Distribute information or post signs with mileage, time, and calories burned through underground walkway and skyway systems.
 - Provide maps of inside and outside walking routes.
 - Research a partnership with the America on the Move program, a walking program designed to stop the current average weight gain of one to three pounds per year (page 24, AOO Proceedings – Appendix I).
 - Encourage department/division/or other workplace competitions related to activity and nutrition.
- Support activities promoted by CardioVision 2020 and other health/fitness activities promoted in our communities.
- Develop group nutrition/activity classes for employees trying to lose weight. This collaborative program between Dietetics/Endocrinology and Dan Abraham Healthy Living Center, an on-campus fitness center, would provide interactive education on nutrition, activity, and lifestyle changes.
- Modify and merge existing programs to avoid duplication.

Recommendations for Olmsted County and the surrounding area

- Plan and conduct the Oct. 5, 2004, town hall meeting hosted with partners including Olmsted County Public Health Department, the Rochester public and parochial schools, IBM, Rochester Chamber of Commerce, etc.
- Incorporate summit action items into the community program. Likely options include:
 - Incorporate nutrition strategies to prevent and treat obesity (page 21, AOO Proceedings, Appendix I).
 - Launch America on the Move walking program (page 24, AOO Proceedings, Appendix I).
 - Increase outreach into Hispanic and Somali communities and other ethnic groups.
 - Support CardioVision 2020, a community health initiative that seeks to improve the heart health of all Olmsted County residents. Its goal is to promote a smoke-free environment, heart-healthy nutrition habits and a physically active lifestyle for all children and adults living in Olmsted County.

- Ensure consideration is given to "Baby, It's Cold Outside" by Dr. A. Smith (page 25, AOO Proceedings, Appendix I)
- Support free unstructured play at area parks as an alternative to organized sports (page 20, AOO Proceedings, Appendix I).
- Incorporate feedback from city planning and zoning officials to help increase physical activity. For example, future construction around Mayo Clinic should consider bike routes.
- Introduce America on the Move walking program into Rochester schools.
- Work to enhance middle school nutrition and fitness curriculum.

Other Post Summit Action on Obesity Task Force Recommendations:

The committees are working to implement the action plans within Mayo Clinic and in the community.

- Teleconferences are being arranged between delegates.
- A Web site, www.actiononobesity.org, will update readers on activities, teleconferences, progress, other links, etc.
- Action items that were submitted, printed or presented are being reviewed. Many have been selected for implementation into the worksite and community programs.
- Two articles are being written for Mayo Clinic Proceedings about the Action on Obesity process and the summit.

Outcomes Research

As the Action on Obesity recommendations are implemented, it is important to document the outcome of these programs. Tracking and measuring improvement in employee job satisfaction and self-esteem, physical activity, healthy nutrition choices, weight, body mass index, absenteeism, medical costs and pharmaceutical costs are part of the overall plan.

Health Promotion Initiative

There are significant challenges to carrying out community-based health promotion initiatives, including challenges to commitment, coordination, funding and sustainability.

These efforts run counter to many multimillion-dollar marketing campaigns for products and services that promote a sedentary, high-calorie lifestyle.

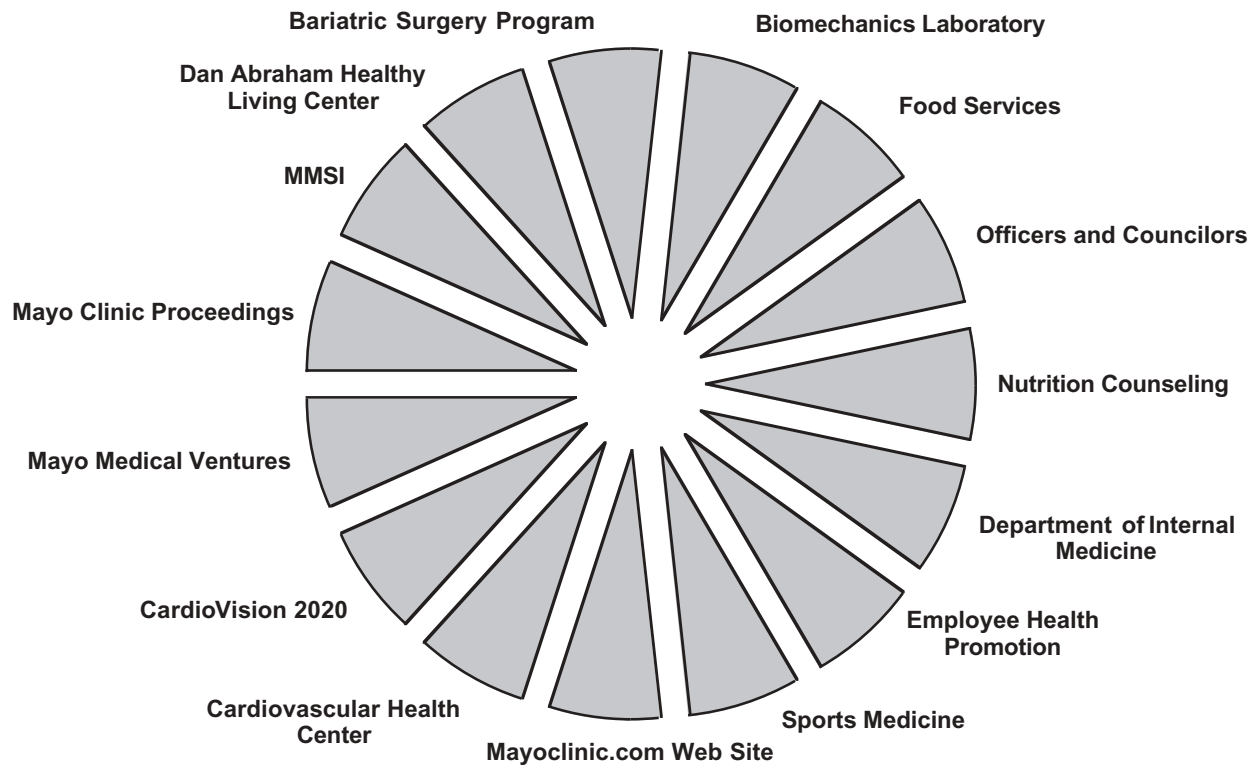
Nationally, health promotion faces the perennial challenge of being strongly supported but significantly underfunded in nearly all government, business, and health care settings. About 95 percent of the \$1 trillion the United States spends on health each year is used for direct medical care, while only 5 percent is spent on health promotion activities. This occurs despite awareness that 40 percent of deaths are caused by potentially modifiable behaviors.

In Mayo Clinic, dozens of departments and programs focus on objectives in line with Action on Obesity.

A Mayo Clinic Health Promotion Initiative would coordinate the health promotion activities of different departments, centers and programs including primary care, preventive medicine, cardiology, Cardio Vision 2020, endocrinology, sports medicine, food services, the Dan Abraham Healthy Living Center and many other areas.

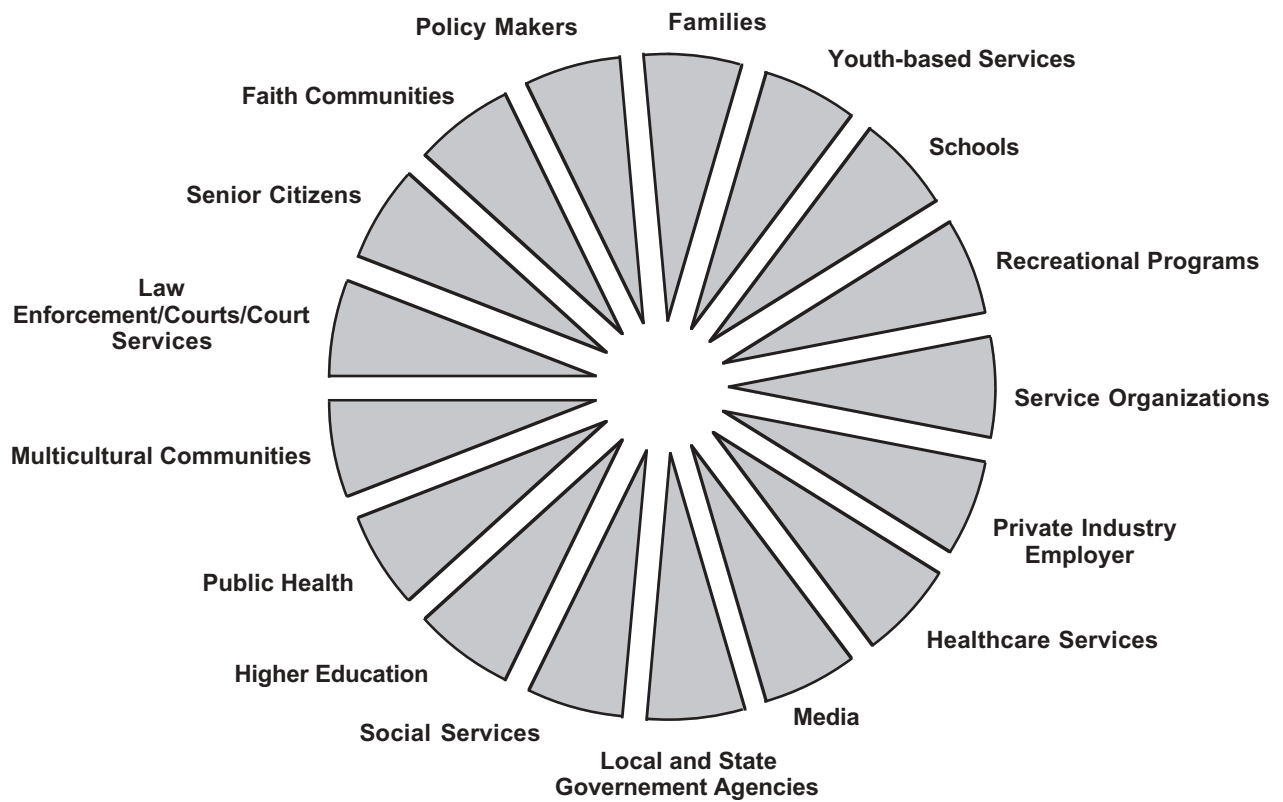
The Health Promotion Initiative would be a coordinating, integrating framework to facilitate interaction on clinical, educational and research activities – all working toward lower weight, decreased morbidity and a reduction in health care expenditures. This initiative could improve clinical care by developing new cost-effective programs, avoiding duplication and fostering outcomes-based research.

Initial planning is under way. Some health promotion activities or programs presently operating within Mayo Clinic are depicted in Figure 2.



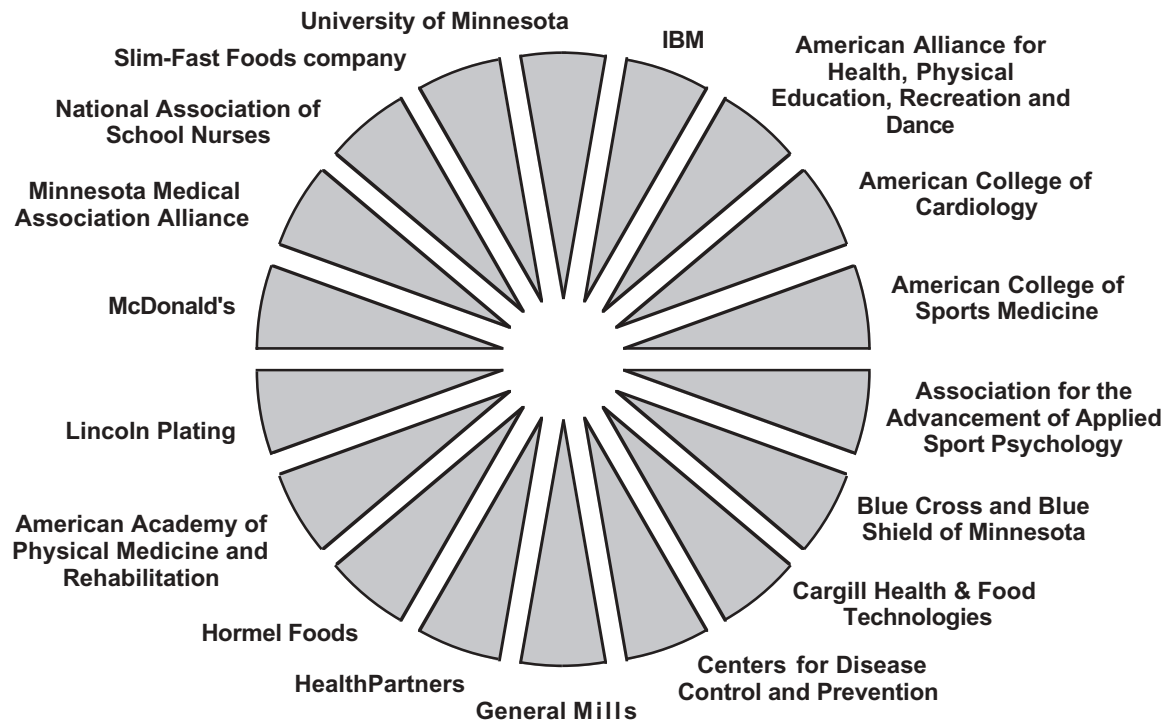
Some of the Separate Areas That Represent Health Promotion Activities Within Mayo Clinic

Some health promotion activities or programs presently operating within Olmsted County are depicted in Figure 3.



Some of the Separate Areas That Represent Health Promotion Activities Within the Community

Some health promotion activities or programs presently operating within the nation are depicted in Figure 4.

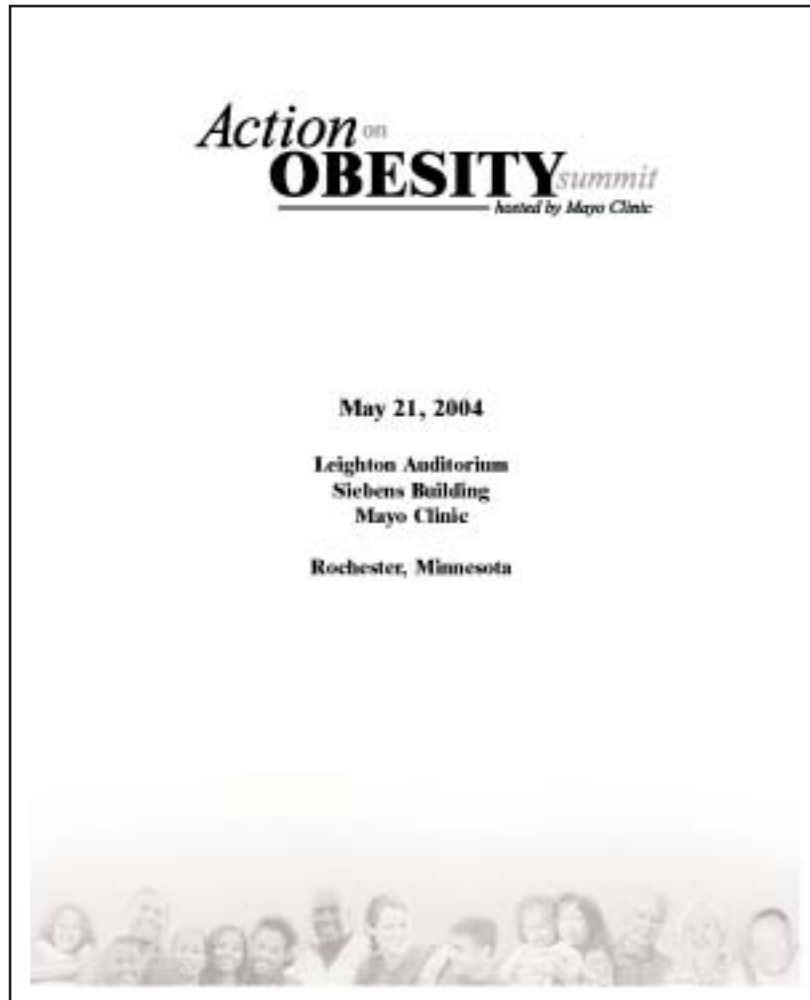


Some of the Separate Areas That Represent Health Promotion Activities Within the Nation

Appendix I

Proceedings for the Action on Obesity Summit

Please see the enclosed spiral bound booklet.

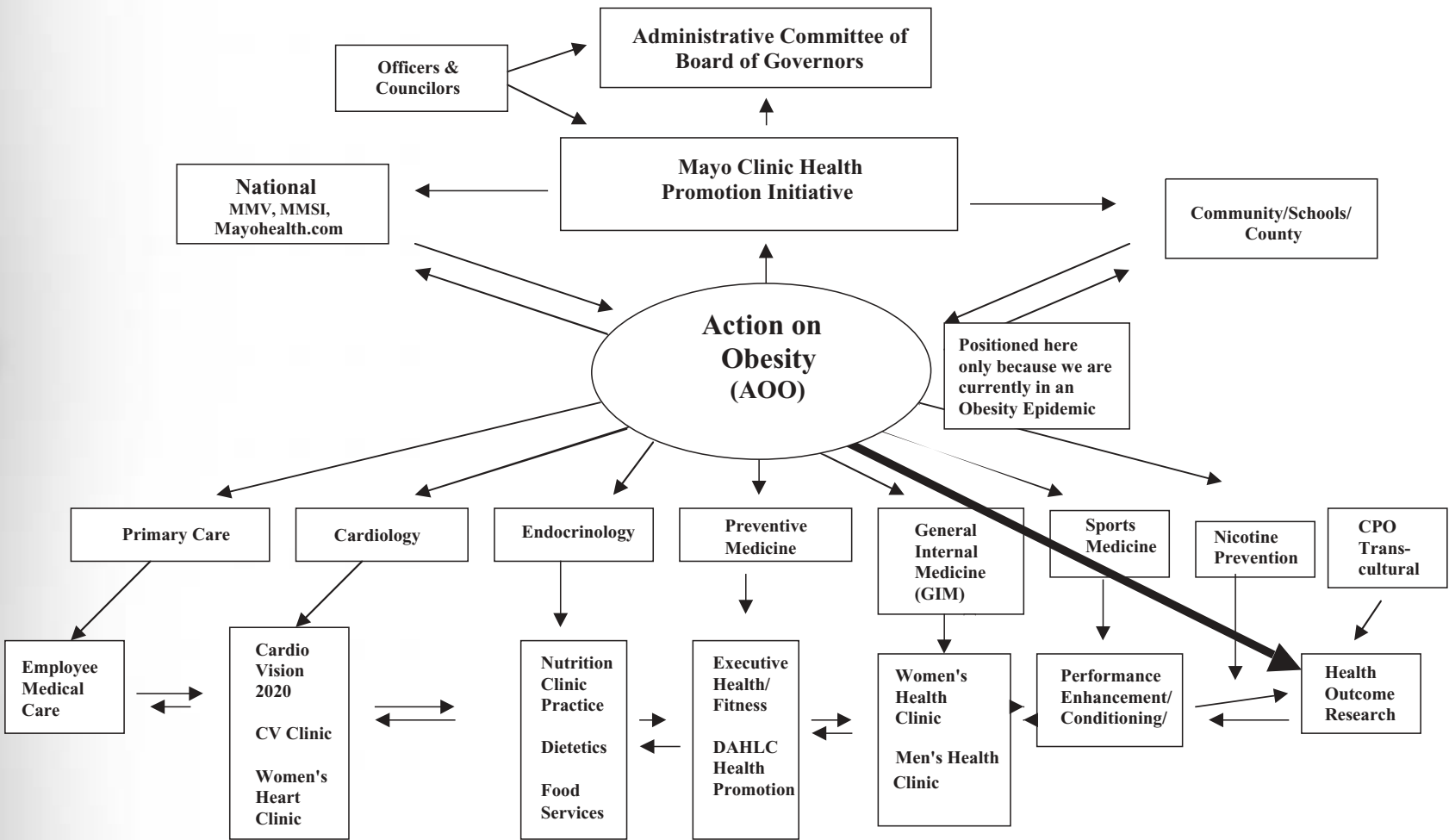


Appendix II

Puzzle Solutions

<p>Individual/Health Care Provider Breakout Group #1</p> <p>Top Action Items</p> <ul style="list-style-type: none">• Avoid words "diet" and "exercise"• Align healthcare systems to optimize identification and treatment• Professional education• Patient-centered care and education• Multidisciplinary and novel approaches• Address psychological health and family• Provider outreach to children/schools	<p>Schools, Communities, County Breakout Group #2</p> <p>Top Action Items Physical Activity</p> <ul style="list-style-type: none">• Mandatory PE K-12 as a state policy in all school districts• Cultural norms with increased awareness through education• Institute corporate wellness programs through promotion of successful models• Promote supervised spontaneous after school activities through youth groups and community activities <p>Top Action Items Nutrition</p> <ul style="list-style-type: none">• Social marketing• Increasing nutritious vending machine choices• Identify kcal on menu items to reduce consumption	<p>Schools, Communities, County Breakout Group #3</p> <p>Top Action Items</p> <ul style="list-style-type: none">• Implement nutrition policies and guidelines that require X percent of foods meeting health criteria in school and community locations• Provide spontaneous, non-competitive recreation options for entire community• Implement consumer-led nutrition and physical activity policy initiative
<p>Worksite Health Promotion Breakout Group #4</p> <p>Top Action Items</p> <ul style="list-style-type: none">• Ultimate goal of 10,000 steps/day with competition and step markers throughout facility• Ensure healthy options and portion sizes at affordable prices• Cafeteria printout receipts with nutrient analysis	<p>Worksite Health Promotion Breakout Group #5</p> <p>Top Action Items</p> <ul style="list-style-type: none">• Leadership facilitates a cultural shift - implements infrastructure (wellness czar, committee), aligned strategies and reinforcing policies, scorecard/measures• Survey research/needs assessment - engage employees• Education, goal setting (team, individual), incentives, feedback, recognition• Offer events and opportunities - environmental changes (built, 'healthier defaults')• Comprehensive approach to wellness (keep it simple)	<p>State/National/Media/Marketing Breakout Group #6</p> <p>Top Action Items</p> <ul style="list-style-type: none">• Communications, marketing, public opinion• Policy• Research• Structure• Education

Flow Chart of Action on Obesity Informal Task Force



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