Dallas County Judge and Dallas Mayor's Community Health Task Force
Final Report

October 2004
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Executive Summary

Background: In the spring of 2004, Dallas County Judge Margaret Keliher and Dallas Mayor Laura Miller jointly commissioned a task force aimed at improving health in Dallas County. The task force, officially named the “Dallas County Judge and Mayor’s Community Health Task Force,” is co-chaired by Dr. Jim Walton and J. McDonald “Don” Williams. The task force is supported by the Foundation for Community Empowerment (FCE) and Bain & Company, both on a pro bono basis. A team of consultants was tasked with conducting a comprehensive study of health issues and their impact on Dallas County.

Over a three-month period, the task force performed research on national and worldwide best practices in health promotion, analyzed data on health in Dallas County, and gathered input from nearly 50 task force members and more than 20 other national and local health experts. The objective of the task force work was to develop an action plan to create an “epidemic of health” in Dallas County.

The 50-member task force is comprised of leaders from a diverse cross-section of the community including representatives from medical, business, education, government, religious, civic and non-profit sectors. The task force developed the following objectives:

- Understand steps that can be taken to improve the levels of health-promoting habits and behaviors and lead to changes in health status
- Identify individuals and organizations in the community who can influence health habits
- Define specific actions with high return on investment that will lead to better health outcomes
  - Improve overall health
  - Reduce health care costs

To formulate its recommendations, the task force, with the support of FCE and Bain, conducted the following series of activities:

- Conducted one-on-one sessions with each member of the task force to gather input and shape the task force proposals
- Researched numerous papers and studies on health outcomes, healthy behaviors, social capital and health promotion strategies
- Developed a database of programs exhibiting best demonstrated practices (BDP)
- Conducted various quantitative and qualitative analyses to better understand Dallas County health issues and prioritize recommendations
- Convened four times as a general body to discuss findings and agree on recommendations

Areas of focus: From this work, several areas of focus emerged:

1. Focus on prevention – Most health care spending today is aimed at treatment, but research has shown that well-designed prevention efforts can be highly effective in reducing the need for later treatment.

2. Focus on improving habits and behaviors – Fifty percent of health outcomes are a result of poor health conditions caused by habits and behaviors, such as poor
nutrition, lack of physical activity, tobacco use and alcohol abuse. Specifically, it is estimated that these four behaviors drive over 40% of deaths in the United States.

3. **Focus on community-based efforts** - Best practice programs tended to be designed by community residents and supported by a broad array of social networks rather than implemented only by outside “experts.” In addition, there is a strong link between active community involvement (“social capital”) and health outcomes, so community involvement itself may create health.

4. **Focus on highest potential for impact targets** - Significant health disparities exist between geographic areas of Dallas County, between people of different races/ethnicities and between people of different income levels. Health improvement efforts will have the most impact when tailored to the specific need of the identified community versus using a standardized approach.

5. **Focus on eliminating systemic inhibitors** - Unsafe neighborhoods, lack of supermarkets, unsafe or unavailable exercise facilities, limited access to or use of corporate wellness programs and lack of health insurance are all examples of things that inhibit the ability of people to practice healthy behaviors.

**Recommended Actions:** To improve health in Dallas County and address these areas of focus, the task force recommends the following actions:

- **Coalition formation:**
  - Bring together community groups into Healthy Community coalitions to address health issues in their communities.
  - Format a county-wide, cross-sector Healthy Dallas resource group to support Healthy Community coalitions and drive the long-term changes that are needed to enable health.

- **Actions and responsibilities of the Healthy Dallas resource group:**
  - Creation of a database of best demonstrated practice programs to assist Healthy Community coalitions
  - Resources focused on programs targeting four focus behaviors (nutrition, physical activity, tobacco use and alcohol use)
  - Development of guidelines and recommendations for program implementation
  - Setting goals and tracking metrics to measure impact and evaluate outcomes
  - Development of a communication and messaging strategy to drive awareness
  - Pursuit of longer-term advocacy priorities

**Potential Impact:** If programs implemented across Dallas County can achieve the average success of best practice programs around the country, these initiatives will yield an annual inpatient health care cost savings of more than $250 million and a reduction in mortality of 1,300 lives per year. If outpatient costs are considered, the cost savings would be even more substantial. Given that total health care expenses are approximately 2/3 inpatient and 1/3 outpatient, adding outpatient expenses to the savings could raise the savings figures 50%, bringing the savings total to as much as $385 million per year. In addition to saving lives and money, these programs will also significantly improve the quality of life for many residents of Dallas County.
Summary of recommendations

- Bring together community groups into Healthy Community coalitions, thereby enabling health improvement at the community level
  - The community coalitions should be comprised of community “influencers” who are not necessarily health experts. “Influencers” can come from a broad range of formal and informal groups including religious, ethnic, interest, cause or other identifiable networks such as “Casas de Oriundas” among the Mexican-American population
  - The coalitions should reach out to existing community groups and networks as well as create opportunities for all interested groups and “influencers” to become involved in coalition initiatives
  - The community coalitions should be responsible for prioritizing community issues and implementing programs to improve community health

- Form a county-wide, cross-sector Healthy Dallas initiatives resource group
  - The Healthy Dallas group should be comprised of a broad range of health, business, government, non-profit and community coalition representatives
  - Healthy Dallas should provide the community coalitions with information and advice about best practices, health and community building, fund-raising, political capital, and other support

- Healthy Dallas and the Healthy Community coalitions will set goals and track metrics to evaluate outcomes and measure success
  - Healthy Dallas and the community coalitions will continually track and monitor primary and secondary metrics
  - Healthy Dallas and the community coalitions will track concrete, measurable impact. Particular emphasis will be placed on identifying short term metrics and success stories to demonstrate early results, motivating community groups and program participants

- Develop a communication strategy to drive public awareness of and participation in the Healthy Dallas initiatives
  - Healthy Dallas should develop a broad, consistent messaging campaign aligned with Healthy Dallas goals
  - Messaging efforts should identify and highlight short and long-term success stories
  - Healthy Dallas should provide communication and messaging expertise to community coalitions

- Create a database of best-practice programs to assist community coalitions in achieving their community health goals
  - Numerous, successful programs are in place nationally and around the world that can be applied “as is” in Dallas County, or modified to meet local community characteristics
- Emphasis will be placed on identifying successful programs in Texas as well as programs that are sensitive to cultures and characteristics of different ethnic groups, particularly those most prevalent in the Dallas County area.

- *Healthy Dallas* should develop a series of guidelines and recommendations for effective program development and implementation.
  - *Healthy Dallas* should provide training and guidance as needed to assist community coalitions in program implementation.

- Individual *Healthy Community* coalitions should select their own programs and prioritize their own issues. However, based on research and analysis, *Healthy Dallas* will focus support on specific areas where community coalitions can be particularly effective. Areas the coalition will support include:
  - Improved nutrition
  - Increased physical activity
  - Decreased tobacco use
  - Decreased drug/alcohol use
  - Increased early childhood intervention

- *Healthy Dallas* will work to affect broad community-wide changes that promote health and remove barriers to healthy outcomes. Potential areas of focus include:
  - Increase the number of supermarkets and stores that offer healthy, affordable food in under-served areas
  - Increase the usability of recreational locations and other areas conducive to physical activity
  - Involve the business community to a greater degree in improving the health of Dallas County – promoting employee health, partnering with schools, sponsoring initiatives, etc.
  - Improve access to insurance and primary care for all Dallas County citizens
  - Achieve broader adoption of the restaurant smoking ban
  - Eliminate soda from school vending machines
  - Affect wide-spread adoption of on-site defibrillators by employers
  - Work with employers and health care providers to increase time and opportunity for preventive treatments
  - Support legislation giving weight to employer-sponsored insurance benefits in awarding government contracts
  - Improve Dallas County air quality and home conditions, which are the leading causes of asthma among children
Exhibit 1

TASK FORCE MEMBERS

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The importance of improving health in Dallas County

The case for health improvement

*Health is a state of complete mental, physical and social well-being and not merely the absence of disease or infirmity.*

- World Health Organization

Improving health is an important issue across the country. Health care costs are rising rapidly and disease rates remain high. From Washington, D.C. to Main Street, people are looking for ways to reduce costs and improve health. Dallas County is no exception.

Health care is the largest - and one of the most rapidly growing - component of the U.S. economy, rising from 5% of the gross domestic product (GDP) in 1960 to almost 15% in 2002. It is projected to increase to nearly 18% by 2012. This growth represents a compounded annual growth rate of more than 7% since 1980. In dollar terms, national spending on health care in 2002 health care was $1.55 trillion - more than $5,400 per person.²

Finding ways to improve overall health, reduce demand on the health care system, and thereby reduce the escalation of health care costs is a top priority in this country. While health, as defined by the World Health Organization, is more than the mere absence of sickness, disease rates are one indicator of the health of a community.

When compared to the national averages of disease rates we see very little difference between Dallas County and the rest of the country. The task force believes focus on altering four key behaviors - tobacco use, alcohol abuse, poor diet, and physical inactivity - will yield the greatest results.

Health's importance is also evidenced by its link to broader community issues. For example, better health is intrinsically linked to educational success and greater earning potential. Population groups with the worst health status are also those with the...
least education and greatest poverty rates. Studies show that better health results in greater worker productivity and career success. Healthy people are also more likely to vote and be active civically. Health is even linked to a higher level of social trust and perceived fairness.

Exhibit 4
Dallas County vs. U.S. in diseases

<table>
<thead>
<tr>
<th>Disease</th>
<th>Percent of population affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>14%</td>
</tr>
<tr>
<td>U.S.</td>
<td>11%</td>
</tr>
<tr>
<td>Asthma</td>
<td>16%</td>
</tr>
<tr>
<td>High Blood Pressure</td>
<td>20%</td>
</tr>
<tr>
<td>Stroke</td>
<td>3%</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>27%</td>
</tr>
<tr>
<td>U.S.</td>
<td>26%</td>
</tr>
</tbody>
</table>

Source: Our Community Health Checkup 2002 for Dallas County

Exhibit 5
Dallas County vs. U.S. in behavior

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Percent of adults exhibiting behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>24% (Dallas) 23% (U.S.)</td>
</tr>
<tr>
<td>Alcohol</td>
<td>48% (Dallas) 37% (U.S.)</td>
</tr>
<tr>
<td>Overweight</td>
<td>54% (Dallas) 38% (U.S.)</td>
</tr>
</tbody>
</table>

Source: Our Community Health Checkup 2002 for Dallas County

The need for health improvement is especially acute when the health disparities across Dallas County are observed.

Potential impact of health improvement in Dallas County

If the Healthy Dallas initiative achieves in Dallas County the kind of success seen in other health initiatives across the country, an annual inpatient health care savings of more than $250 million and almost 1,300 lives can be saved every year. The cost savings represents more than $110 per person in Dallas County. If we were to include outpatient expenses, the savings is estimated to be as high as $165 per person ($385 million).

In addition to saved lives and money, this type of effort will also impact Dallas County in other ways. The burden on the health care system of caring for so many patients with these conditions would be lessened. Government resources required to fund health care expenditures could be directed to other areas. More people would enjoy a longer, better quality of life as a result of improved health.
Impact study methodology

The task force sought to quantify from a life and cost-savings perspective the potential impact of the Healthy Dallas initiative. To accomplish this, the task force first identified the diseases that represented the greatest number of deaths and/or were associated with the highest cost to the health delivery system. Next habits and behaviors were identified that have the greatest impact on health - tobacco use, poor diet and physical inactivity, and alcohol abuse. The percent of a disease caused by the four target behaviors was determined and the total inpatient cost and lives lost from each disease associated with each habit/behavior was calculated.

The next step was to determine the realistic impact the Healthy Dallas initiative could have on the target behaviors. To accomplish this, the task force researched a broad range of best demonstrated practice (BDP) programs aimed at improving the target behaviors and measured the outcomes these programs achieved. By taking the average success (measured in target-behavior improvement) of the programs, and applying the average success to the Dallas County data, the task force was able to quantify a realistic expectation for success.

These figures are conservative for two reasons. First, the data only considers inpatient cost. If outpatient data were considered, the impact could be over 50% greater. Second, the task force used the average success of other programs as the top level of expected success and looked at the impact of only 50% of the average success level in Dallas County. Therefore, more successful programs will result in greater

Potential impact - disease

The four high-impact behaviors drive a significant portion of the deaths from major diseases. For example, 53% of cancer deaths are a result of the four behavioral factors. Similarly, 43% of deaths from heart disease are a result of the target behaviors.

Even a small improvement in the four target behaviors can have a significant impact on the disease. For example, a 10% reduction in smoking will result in a 2.1% reduction in heart disease, a 3% reduction in cancer, and a 3% reduction in chronic lower respiratory tract disease.
Exhibit 7
Many deaths due to prevalent diseases are driven by habits and behaviors

Percent of deaths caused, by factor

Heart disease  Cancer  Cerebrovascular disease  Chronic lower respiratory tract disease  Accidental injuries  Diabetes mellitus  Flu & Pneumonia  Cirrhosis

Percent caused by target habits and behaviors 43%  53%  25%  30%  33%  30%  28%  76%


Exhibit 8
Changing habits and behaviors can have significant impact on these prevalent diseases

Reduction in disease caused by 10% reduction in behavior

Heart disease  Cancer  Cerebrovascular disease  Chronic lower respiratory tract disease  Accidental injuries  Diabetes mellitus  Flu & Pneumonia

Tobacco  Poor Diet & Exercise  Alcohol Consumption

Potential impact – best demonstrated practice programs

The task force identified over 25 best demonstrated practice (BDP) programs across the country and throughout the world that were community-based and could be implemented in Dallas County. (For more information on the details of specific Best Demonstrated Practice programs, please see the task force’s “BDP Program Database” on the Healthy Dallas website at www.HealthyDallas.org)

The average success of these programs achieved a 24% reduction in smoking, a 40% reduction in past-month alcohol consumption, and a 15% reduction in obesity. Given that success at these levels has been demonstrably achieved in other areas of the county, these should be realistic targets for programs in Dallas County to achieve.

Potential impact – inpatient costs and lives

The four target behaviors result in inpatient costs of more than $1 billion annually in Dallas County. Tobacco use is the most costly, accounting for 50% of this cost. If outpatient costs were included, the amount would be substantially higher.

In the service areas of South and West Dallas (as defined by the Community Health Checkup), two areas with a combined population of only 50,000 people, average behavior success would result in $8 million in inpatient costs savings and 50 lives saved.

Exhibit 9
Best Demonstrated Practice programs show 15-40% reduction is achievable

<table>
<thead>
<tr>
<th>Tobacco</th>
<th>Alcohol</th>
<th>Obesity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent reduction in tobacco use</td>
<td>Percent reduction in past month alcohol use</td>
<td>Percent reduction in obesity</td>
</tr>
<tr>
<td>24%</td>
<td>40%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Source: Bain Team analysis and research of numerous BDP programs – for further detail on specific programs, please see the task force’s “Best Demonstrated Practice Program Database.”
Exhibit 10
Four key behaviors drive nearly $1B in inpatient costs in Dallas County

![Bar chart showing Dallas County Inpatient Costs by behavior.


Exhibit 11
Achieving only half of BDP levels of reduction in just South and West Dallas can save $4M in inpatient costs and 25 lives per year

![Bar chart showing savings in South & West Dallas inpatient healthcare costs.


Including outpatient costs could increase savings by 50% or more

Lives saved at 50% BDP level: 13, 7, 5, 25

15
Adding the next two least healthy service areas in Dallas County (among the twelve defined by the Community Health Checkup), South Oak Cliff and Southeast Dallas, at the same average success rates would yield an additional $60 million in cost savings and save over 300 lives annually. Applied to all of Dallas County, with average success, the Healthy Dallas initiative would yield savings of more than $250 million and save 1,300 lives per year. Reduction in tobacco use offers the greatest potential impact. Average success across Dallas County in smoking reduction will save more than $160 million and save 700 lives per year. Improved diet and physical activity would also yield significant results with more than $70 million in savings and 400 lives per year.

**Exhibit 12**
Expanding these reductions to all of Dallas County can save $125-250M in inpatient costs and 650-1300 lives per year

<table>
<thead>
<tr>
<th>Savings in Dallas County</th>
<th>Inpatient healthcare costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>$300M</td>
<td>$185M</td>
</tr>
<tr>
<td>$200M</td>
<td>100% BDP</td>
</tr>
<tr>
<td>$100M</td>
<td>$60M</td>
</tr>
<tr>
<td>$8M</td>
<td></td>
</tr>
</tbody>
</table>

| Lives saved at 50% BDP level | 25  | 159 | 459 | 642 |

Exhibit 13
Each target behavior yields potential for significant savings

Potential savings in Dallas County inpatient healthcare costs

$300M

$166M

$71M

$15M

$252M

Smoking Reduction

Diet & Exercise

Alcohol Reduction

Dallas County

100% BDP

50% BDP

Lives Saved at 50%

350

200

90

640

Focus on prevention

"The function of protecting and developing health must rank even above that of restoring it when it is impaired."  

-Hippocrates

Reducing demand for health care services through behavioral change — rather than increasing access or supply to clinical care — will be the most effective approach in improving health in Dallas County.

The prevailing focus on improving health in the U.S. is on increasing the capacity (supply) and treatment effectiveness of health care. In 2000, 95% of the $1.4 trillion in health care spending was for treatment and only 5% was for prevention.

**Exhibit 14**  
Spending on treatment vs. prevention

![Graph showing spending on treatment vs. prevention](image)

As such, the health care system more closely resembles “sick care” than it does health care. The driver of this is not ignorance of Hippocrates’ standard, but the tendency for the urgent to take precedence over the important.  

The presence of illness or injury often overpowers all other concerns, and the search for treatment becomes the focus — often ignoring the behavioral changes that could have averted treatment altogether. Other factors that influence the focus on treatment rather than prevention include:

- Lack of reimbursement for prevention services
- Development of new medical technologies to treat diseases once they occur, thereby reducing the sense of “need” to prevent them through simpler methods

At the policy level, a similar problem emerges. With the rising cost of health care and public burden for medical expenditures, cost cutting is often targeted first at discretionary spending — such as those expenditures in prevention and public health that may offer the greatest prospect for health improvement. Immediate fiscal relief uproots long-term consequences of these actions.

Prevention is the most effective way to reduce demand or at least reduce the rate of increase in demand for health care services. Reducing demand for health care services translates into: 1) healthier citizens, 2) reduced burden on health care institutions and personnel, and 3) reduced burden on taxpayers and businesses. Reducing the demand will not eliminate the need for health care; the goal is to produce a healthier Dallas County and to liberate health care resources to provide more efficient, higher-quality care to those in need.

The effectiveness of prevention is evident from the dramatic decreases in childhood diseases as a result of early childhood...
immunizations. Once-common diseases, such as polio, rubella, and diphtheria are now rare in the U.S. Similarly, incidence rates of invasive cervical cancer and cervical cancer mortality have declined dramatically after the implementation of regular screening using the Papanicolaou test (PAP Smear)\textsuperscript{12}.

Not only has prevention proven to be effective, but it also has proven to be cost-effective. Prevention-focused programs can yield savings ranging from $3 to $20 per $1 of prevention cost—a pattern of remarkable return on investment.

Not included in the results are the more important benefits from improved quality of life and greater longevity.

Looking at health care from more than a treatment perspective yields a value chain of processes required to preserve health— from health promotion to treatment.

Each step in the health care value chain is characterized by different locations, influencers and relative cost.

The health care value chain is highly developed, especially on the treatment end, where health care institutions are uniquely qualified to provide treatment and health maintenance. Influence is somewhat easy because people rely on the advice and expertise of their doctor. At the other end of the value chain, health promotion is not fully developed and influencing people can be difficult. In this case, communities are uniquely positioned to influence health promotion because of the networks of groups and individuals with long-term relationships and social trust.

Exhibit 15
Prevention savings ratio

![Bar chart showing prevention savings ratio](source: www.cdc.gov/ncedphp)
<table>
<thead>
<tr>
<th>Health Promotion</th>
<th>Screening/Prevention</th>
<th>Maintenance/Control</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example Locations:</td>
<td>Community</td>
<td>Community clinics</td>
<td>Physician offices</td>
</tr>
<tr>
<td>Influencers:</td>
<td>Friends, family, community leaders and peers</td>
<td>Clinicians, employers, schools, healthcare professionals</td>
<td>Physicians, healthcare professionals</td>
</tr>
<tr>
<td>Relative Cost:</td>
<td>0 - $</td>
<td>$ - $$</td>
<td>$$ - $$$</td>
</tr>
<tr>
<td>Ability to Influence:</td>
<td>Limited</td>
<td>Somewhat limited</td>
<td>High</td>
</tr>
<tr>
<td>- Lack of urgency and few points of contact</td>
<td>- Can enforce through employer/school requirements</td>
<td>- Ongoing scheduled visits and follow up</td>
<td>- Patient seeks treatment</td>
</tr>
</tbody>
</table>

Source: Team analysis and research
Focus on habits and behaviors

Although most of our funding and energy is focused on the health care delivery system, we know that it only accounts for approximately 10% of an individual’s health outcomes. At 50%, behavioral factors are the largest factor in determining health.

Exhibit 17
Determinants of Health

Therefore, a focus on behaviors will offer the greatest impact from any efforts to impact health.

When the diseases that cause the highest rates of deaths and drive the highest health care costs are identified, the corresponding behaviors that impact them can be identified. The four behaviors that have the greatest impact on health are physical activity, nutrition, tobacco use, and substance abuse. These four behaviors account for 80% of the preventable or behavior-related deaths in the U.S.
The magnitude of these behaviors on costs is dramatic. These four behaviors drive $1 billion in annual inpatient costs in Dallas County.
Nutrition and physical activity

“This (physical inactivity and obesity) is one of the major health epidemics we’re looking at in America. I truly see this as a very grave problem for which we in the public need to certainly be pro-active in terms of taking charge of our health.”

-Denise Bruner, Chair of the American Society of Bariatric Physicians

The case for improving diet and increasing physical activity

Poor diet and physical inactivity are big problems in the U.S. Less than 10% of the population is eating enough fruits and vegetables, and a majority of people are exceeding the recommended intake of total and saturated fat.

Exhibit 21
Too much fat; too little fruits and vegetables

Exhibit 22
Most people don’t meet recommended exercise guidelines

This results in high levels of chronic diseases including heart disease, cancer, stroke, and diabetes.

Exhibit 23
Diseases affected by diet and physical activity

Additionally, most people do not meet the recommended guidelines for even moderate physical activity.

The primary indicator of the quality of our diet and the level of physical activity is the number of overweight and obese people. In the U.S., almost 65% of adults are
overweight and more than 22% are obese\textsuperscript{13}. Among children and adolescents, more than 30% are overweight and more than 16% are obese\textsuperscript{14}. Alarmingly, the rate of increase in overweight children is growing 4-5% annually - three times the rate of adults\textsuperscript{15}.

In Texas, poor diet and physical inactivity are an even greater issue. Almost 26% of Texans are obese compared to 22% nationally.

\textbf{Exhibit 24}
\textbf{TX vs. U.S.}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{tx_vs_us.png}
\caption{Percentage of adults}
\end{figure}

Source: National Center for Chronic Disease Prevention and Health Promotion - Behavioral Risk Factor Surveillance System

For Dallas County, given the disparities in the number of overweight and obese children and adolescents by race, the problem is likely to be more acute than in other areas. 43.8% of Mexican-American adolescents are overweight, and 40.4% of African-American adolescents are overweight.

\textbf{Exhibit 25}
\textbf{Overweight children by race}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{overweight_children.png}
\caption{Percentage of overweight children and adolescents}
\end{figure}

Source: National Center for Chronic Disease Prevention and Health Promotion - National Center for Health Statistics

These two groups are projected to comprise 85% of the Dallas County population by 2040.

\textbf{Cost of poor nutrition and physical inactivity}

The medical cost of poor nutrition and physical inactivity is tremendous. For obesity alone, medical costs in the U.S. totaled an estimated $75 billion in 2003\textsuperscript{16}. Nationally, taxpayers covered $39 billion of the obesity-related costs through Medicare and Medicaid programs. This represents about $175 per taxpayer in the U.S. - a significant tax burden. More significantly, the life expectancy of an obese person is 6-7 years shorter than a "normal-weight" person\textsuperscript{17}.

In Dallas County, inpatient costs attributed to poor diet and physical inactivity total more than $450 million per year.

\textbf{Barriers to change}

What is keeping Dallas County from achieving improvements in diet and physical activity? Most people cite will power and time as the primary barriers to change.
Smoking

"The single most direct and reliable method for reducing consumption is to increase the price of tobacco products, thus encouraging the cessation and reducing the level of initiation of tobacco use."

- National Academy of Sciences’ Institute of Medicine

The case for reduction in smoking

Smoking is the biggest killer in the U.S. Tobacco was the primary cause of 440,000 deaths in 2000, or more than 18% of all deaths in the U.S.18. To put this in perspective, smoking kills more people than alcohol, AIDS, car accidents, illegal drugs, murders, and suicides combined19. While smoking causes almost all cases of lung cancer, it is also linked to a wide range of diseases including numerous cancers, heart disease, respiratory problems, and reproduction problems.
Exhibit 27
Smoking linked to a wide range of diseases

<table>
<thead>
<tr>
<th>Cancer</th>
<th>Cardiovascular Disease</th>
<th>Respiratory Disease</th>
<th>Reproductive Effects</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bladder cancer</td>
<td>Abdominal aortic aneurysm</td>
<td>Chronic obstructive pulmonary disease</td>
<td>Fatal death and stillbirths</td>
<td>Cataract</td>
</tr>
<tr>
<td>Cervical cancer</td>
<td>Atherosclerosis</td>
<td>Pneumonia</td>
<td>Reduced fertility</td>
<td>Adverse surgical outcomes (healing)</td>
</tr>
<tr>
<td>Esophageal cancer</td>
<td>Cerebrovascular disease</td>
<td>In utero deficient lung development</td>
<td>Low birth weight</td>
<td>Hip fractures</td>
</tr>
<tr>
<td>Kidney cancer</td>
<td>Coronary heart disease</td>
<td>Impaired lung growth in youth</td>
<td>Pregnancy complications</td>
<td>Low bone density</td>
</tr>
<tr>
<td>Kidney cancer</td>
<td></td>
<td>Asthma, coughing, wheezing, dyspnea</td>
<td></td>
<td>Peptic ulcer disease</td>
</tr>
<tr>
<td>Laryngeal cancer</td>
<td></td>
<td>Accelerated aging of lungs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Leukemia
Lung cancer
Oral cancer
Pancreatic cancer
Stomach cancer


The average smoker has a life expectancy that is 13 to 14 years shorter than that of non-smokers\textsuperscript{20}.

Secondhand smoke is also a major issue. Exposure to secondhand smoke is likely to have caused at least 38,000 deaths and more than one million illnesses in children annually\textsuperscript{21}. Secondhand smoke may also increase the risk of lung cancer by 20-30\% and of heart disease by 25-35\%\textsuperscript{22}.

In Texas, smoking caused more than 24,000 deaths in 2002\textsuperscript{23}. While the overall smoking rate is 22.9\% for the state, (20.6\% for Dallas County) young people in Texas are smoking at rates that are more than 10\% higher than adults.

Source: National Center for Chronic Disease Prevention and Health Promotion – Behavioral Risk Factor Surveillance System, 2003
The cost of smoking

In the U.S., more than $75 billion in annual health care costs and $157 billion in total economic losses can be attributed to smoking. Texans spend $4.6 billion on smoking-related health care costs annually - representing more than $7 per pack of cigarettes sold.

Smoking-related health care costs funded through Medicaid total almost $24 billion annually in the U.S. In Texas this figure was $1.3 billion in 1998 - more than $490 per Texas household.

Barriers to change

The primary barrier to change is the addictive nature of tobacco. More than 70% of smokers want to quit, but have been unable to do so. With almost 800,000 new teenage smokers every year, there is a large pool of new smokers to replace those who die from smoking every year.

The tobacco industry spends almost $12 billion in marketing tobacco products every year. Research has shown that children are three times more sensitive to tobacco advertising than adults and are more likely to be influenced to smoke by cigarette marketing than by peer pressure.

Alcohol abuse

Alcohol and drug abuse

Alcohol and drug abuse are major problems in the U.S. and in Texas. Approximately 14 million Americans abuse alcohol or are alcoholics and more than 100,000 deaths are attributable to excessive alcohol consumption. Another 26,000 per year are attributed to drug abuse. Drug-related deaths have almost doubled since the 1980s. On average, abuse of drugs and...
alcohol reduces life expectancy by 28 years\textsuperscript{32}.

In Texas, 10,900 people died from alcohol-related causes and 2,600 died from drug-related causes in 2000. Dallas County leads the nation in the rate of alcohol-related traffic deaths\textsuperscript{33}.

Alcohol and drug abuse are especially severe because their impact is felt by so many other people than just the abuser.

- More than half of all American adults have a close family member who is/was an alcoholic\textsuperscript{34}.
- One half of all sexual assaults and violent crimes involve alcohol\textsuperscript{35}.
- Alcohol and drug abuse are factors in the placement of more than 75\% of children entering foster care\textsuperscript{36}.

- Fetal Alcohol Syndrome affects 40,000 infants annually and is the leading known preventable cause of mental retardation and birth defects\textsuperscript{37}.

Cost of alcohol and drug abuse

National estimates for 1992 place the economic impact of alcohol abuse at $148 billion and drug abuse at $98 billion. The public burden for these costs is approximately $102 billion or almost 42\%. That's more than $1,000 per household\textsuperscript{38}.

In Texas, the economic impact of drug and alcohol abuse was $26 billion in 2000. Alcohol abuse resulted in $16.4 billion or 63\% of the cost. Under-age drinking cost Texas over $5.5 billion.
Potential impact from addressing the four target behaviors

Experiencing average reductions in these behaviors across Dallas County will potentially save more than $250 million of inpatient cost and 1,300 lives per year.

Exhibit 32
Potential savings in Dallas County

![Graph showing potential savings in Dallas County](image)


Exhibit 33
Dallas County Mirrors U.S. averages

![Graph showing percent of population affected by health conditions](image)

Source: Our Community Health Checkup 2002 for Dallas County.

Achieving results in these four health behaviors will translate to the greatest number of lives saved and biggest cost savings.
A child who's overweight as a teenager has an 80% chance of being overweight as an adult."
-Claudia Wallis, Time Magazine

"According to the USDA, only two percent of school-age children meet the dietary recommendations from the Food Guide Pyramid... Only about 30% of all children meet [the USDA calcium requirements]."
-Texas Institute for Health Policy Research

**Childhood intervention**

For all four key behaviors, a focus on children will provide the greatest long-term impact in promoting healthy behaviors.

### Exhibit 34
Dallas County children exhibit at-risk behaviors at early age

![Graph showing at-risk behaviors among Dallas County students](source: DISD 2003 Youth Risk Behavior Survey)

Dallas County children have high levels of at-risk behaviors.

Studies have shown that early childhood intervention is highly effective in achieving desired outcomes and provides a great return on investment. A Chicago study, funded by the Institute for Child Health and Human Development, showed a return of more than $7 per dollar spent. This study also showed that the return declined if the intervention occurred at a later age. Additionally, prenatal intervention has proven to be highly effective in improving infant health and reducing infant mortality.

**Tobacco**

For example, the Texas tobacco prevention initiative targeted both youth and adults to reduce smoking levels. The youth program achieved a 32% reduction while the adult program achieved an 8% reduction.

With 90% of current smokers beginning to smoke before the age of 18, an effective youth program can generate a huge reduction in the number of adult smokers.

**Diet and physical activity**

Child and adolescent obesity growth rates are triple those of adults. This trend is alarming given that 80% of obese children will become obese adults. As discussed, the health and financial cost of this trend will be dramatic.
Illinois provides an example of how a high physical education requirement can result in a reduction in overweight and obese adolescents. 71% of Illinois high school students are enrolled in daily physical education classes. The rate of overweight high school students is less than half the level of Dallas County.45

Exhibit 37
Illinois is an example of a healthy state – high physical education requirements and low overweight

Finding ways to promote healthy eating habits and regular physical activity among children is critical to overcoming the high levels of projected obesity. For example, School-based interventions directed at increasing physical activity have shown to be effective.

Unfortunately, the level of daily enrollment in physical education classes across the U.S. dropped from 42 percent in the early 1990s to less than 30 percent today.44 In Texas, the numbers are worse – only 10% of high school students are enrolled in physical education.
Additional areas that can be improved through community health initiatives

While the task force believes that these four behaviors plus a focus on childhood intervention offer significant opportunities to drive impact, they are by no means the only critical health issues facing Dallas County today. Many other important health issues can and should be addressed through community health efforts. These issues include but are not limited to:

- Asthma
- Mental health
- Accidents and injuries
- Health literacy
- Access to acute care and primary care

Asthma

Affecting approximately 15% of the Dallas County population, asthma ranks fourth among the prevalence of chronic conditions. Asthma is a chronic inflammatory condition with acute exacerbations and can be life-threatening if not properly managed. Although asthma cannot be cured, it can almost always be controlled with medication. Despite progress in the development of pharmaceutical asthma controllers, it is estimated that 48% of people with asthma say that the disease limits their ability to take part in sports and recreation, 36% say it limits their normal physical exertion and 25 percent say it interferes with their social activities. Asthma is a disease of all age groups, but the steepest recent increases in asthma cases have been among the young.

The implications of asthma are profound and include:

- Deaths at a rate of approximately 1.5 per 100,000 population
- Hospitalizations at a rate of approximately 1.6 per 1,000 population each year
- Emergency room visits of approximately 67 per 1,000 population each year
- Asthma is the most common cause of school absenteeism and a major factor in missed work
- Nationally, the annual direct health care cost of asthma is estimated to be $11.5 billion with indirect costs of lost productivity adding another $4.6 billion

Because asthma is a disease that can be managed and controlled, community grassroots efforts should focus on prevention and management activities including:

- Improving access to primary care for children and adults with asthma
- Making cultural and linguistically appropriate information on asthma widely available
- Increasing self-management skills of persons with asthma and their families
- Cooperating and supporting schools to develop educational and health-related services for children with asthma and their families
- Identifying and reducing exposure to local sources of pollution that may trigger wheezing
- Increasing the capacity of families to improve their home environment and reduce exposure to allergens and irritants

32
Managing asthma requires a long-term, multifaceted approach including education, behavior changes, avoidance of asthma triggers, pharmacologic therapy, and consistent medical management.

Mental health

Mental health-related issues drive 10% of inpatient hospital days in Dallas County, resulting in $230M per year in inpatient hospital expenses. Given the predominantly outpatient nature of most mental health treatment, the total cost of mental health issues in Dallas County (including outpatient expenses) is likely much higher. In addition to direct costs, mental health issues often lead to other problems as well — approximately 70% of persons affected with bipolar disorder abuse drugs and alcohol, often as a form of self-medication.

Mental illness can be very difficult to impact, for two primary reasons. First, many with mental illness do not recognize that they have an illness and/or are reluctant to seek treatment due to the social stigma attached to being treated for a mental illness. Second, once those with mental illness seek treatment, the cost can be quite high. Modern psychiatric medications and intensive one-on-one treatment with psychiatrists are both very expensive and may not be covered by insurance.

Potential ways communities can address this issue include:

- Raising awareness of the 2-1-1 system, where callers can get referrals to local services including counseling, psychiatric clinics and, in many cases, free medications where required
- Providing greater assistance and training to volunteer counselors at shelters, faith-based counseling organizations, etc., who can provide free or reduced fee counseling

Accidental injuries

Though often ignored as a major health issue, the facts on injuries are startling. In 2002, 1,150 people in Dallas County died as a result of injuries, and over 14,000 people were hospitalized with major trauma. Injury is the leading cause of death for Dallas County residents age 1-34. Inpatient hospital care for accident victims drove $224M in inpatient hospital expense in Dallas County. Only 30% of those hospitalized for injuries had commercial insurance.

There are numerous barriers to addressing the reduction of injuries.

First, changing individual behavior is difficult. When reducing eating, or increasing exercise or reducing smoking, the individual can experience a sensation that lets them know a change is happening. In injury prevention there is no “pay-off” for changed behavior except that you have made it safely through another day. Changing behavior is particularly difficult given our culture’s tendency to glorify risk-taking behavior.

Second, there is a resistance in Texas to enact laws that would save lives. For example, the sobriety checkpoints that work well in other states are not legal in Texas. The use of red light cameras has been defeated in the legislature and yet they have been proven to save lives.

Third, most funding is assigned to addressing needs after trauma has occurred, rather than preventing the trauma.

Finally, America has a strong legal and cultural acceptance of guns. Where guns are not available or legal, the number of injuries (especially fatal injuries) is greatly reduced.
Communities can address injuries in a number of ways:

- Design and implement programs targeted at proven injury reduction strategies, including increasing the use of safety belts and child safety seats, installing smoke detectors and/or new batteries in homes, and encouraging the use of helmets when cycling.
- Providing mentors to new parents, children and youth, and friendly visitors for the elderly, all of which help prevent violence.
- Develop and implement ways to prevent the injuries most common in the community, whatever they may be. Communities who learn to take care of each other are more effective than any billboards, brochures or projects.

Health literacy

Health literacy has been defined as “the degree to which people have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.” While tied to more traditional educational capabilities such as reading and arithmetic, studies have shown it to be a separate skill and an independent predictor of health outcomes. It may be best illustrated by the following example:

A two-year-old is diagnosed with an ear infection and prescribed an antibiotic. Her mother understands that her child has an ear infection and knows she should take the prescribed medication twice a day. After looking at the label on the bottle and deciding that it does not tell how to take the medicine, she fills a teaspoon and pours the antibiotic into her daughter’s ear.

A physician saw the young patient and successfully conveyed the diagnosis to the mother. Even though the patient’s mother grasped the need for medication to treat the ear infection, the delivery was confounded. Limited interaction with the pharmacist, a prescription label in an unfamiliar language or simply an overwhelming amount of information for a young mother to retain from a brief encounter with the medical system may have led to the error.

As the burden of chronic disease grows, more patients will be under the care of more than one physician and possibly several other health care providers. Routinely, coordination of such care is being relegated to patients. Patients will need the skills to read a prescription label, understand medical warnings, follow appointment schedules and comprehend medical consent forms in order to act as independent health consumers.

The health of the community will depend on the individual members being able to aptly navigate the health care system. The abilities necessary to identify needed services and successfully apply the prescribed treatments depend on a robust literacy in health. While more research is needed to guide efforts for improving health literacy, several models might be adaptable to Dallas today.

One potential way to address this issue would be through the establishment of a health education center at the Woodlawn facility for the purpose of improving health literacy. This could encompass production of education materials, particularly materials that provide non-reading solutions such as cartoons, videos or pictographs with spoken explanations. It might also house a resource center to assist patrons with the use of the internet, empowering them to discover health information that impacts them personally. Lastly, group education seminars could be held for common chronic
conditions such as diabetes to allow patients and their families to learn about medical problems outside of the doctor’s exam room.

Projects such as “mini-medical schools” have capitalized on the public’s nearly insatiable appetite for health news. This has the potential to raise the level of public discourse about health issues by familiarizing the community with medical terminology and insight into modern medicine. Programs at UTMB have been successfully implemented in Houston, Austin, and Galveston. ([www.utmb.edu/minimed](http://www.utmb.edu/minimed))

The appearance of new infectious diseases such as SARS and the West Nile Virus and the threat of bioterrorism have highlighted the need for a comprehensive public health program to capture sentinel events. While the county public health department performs many of these tasks admirably, many of the citizens with limited access look to the emergency room at Parkland and other hospitals for answers to questions more appropriately addressed by a health information clearinghouse. Again the Woodlawn facility might be the ideal location to establish such a clearinghouse to coordinate efforts and disseminate information, in addition to serving as a health information “help desk” with which the community can identify.

Prevention and access are two major pieces to the health care puzzle. In between are the numerous interactions of individual patients with the health care system. The community will need the appropriate health literacy skills to maximize outcomes and to derive benefit from the advances being made everyday in medicine.

**Accessible infrastructure for acute care and primary care**

Primary health care is the first point of contact for people who need health services. And because many social, economic and cultural factors contribute to health and wellness, primary health care is about more than just treating illness. It includes programs to promote good health and improve overall quality of life. In the health care value chain, primary care is a partner to promotion and encompasses screening, prevention, maintenance and control. The health of individuals and communities also depends greatly on access to quality primary care. Expanding access to quality primary care is important to eliminate health disparities and to increase the quality and years of healthy life for all people living in the United States. 53 To respond to this need in the 1980’s Parkland established a network of primary care health care centers based on the Community Oriented Primary Care (COPC) model.

Dallas County experienced tremendous growth through the 1990’s. The uninsured and indigent are now diffused through out Dallas County. Many of Parkland patients no longer come from the traditional inner city neighborhoods. Many now come from suburban and near suburban communities. As a result, Parkland has identified a need for six new Community Oriented Primary Care (COPC) health center sites as well as community-based subspecialty services. As in the past, it is expected that many people accessing care through these new services will have significant medical problems resulting from lack of access and deferred maintenance. As a result of this unmet need and deferred maintenance and the phenomenon of back-filling freed up capacity from pent up demand, it is likely however that a cost savings per case is more likely to occur earlier than overall “system” savings.

To enable access to primary care for all citizens of Dallas County, Dallas should:
• Maintain a good network for acute and primary care by expanding the Parkland health center network to 6 more communities determined by demographic and epidemiological demonstrated need. Support and maintain Project Access. Support and maintain the Federally Qualified Health Centers. Support the work for the Dallas County Medical Society and the free (church based) clinics in Dallas.

• Recognize that primary care expansion will lead to increased need of specialty services, which are beyond capacity currently in the public sector. Expanded specialty services at Parkland and/or in decentralized locations will be necessary over the next several years.
Focus on community-based effort

"Medical care does not promote health; community development does."  
-Dr. M David Low

"...positive contributions to health made by social integration and social support rival in strength the detrimental contributions of well-established biomedical risk factors like cigarette smoking, obesity, elevated blood pressure, and physical activity."

-James House, Sociologist
In Putnam's, Bowling Alone

A behavior-based approach to health requires intervention in the areas where people make the daily decisions of life that affect their health. This requires a bottom-up, grass-roots approach to be successful. For decisions related to diet, physical activity, tobacco, and alcohol/drug use, people rely heavily on their existing social networks for support and information.

Communities are the neighborhoods, worksites, churches, schools, etc. where people interact on a daily basis. As such, communities and the social networks within communities are uniquely positioned to support health promotion. Additionally, community building is not only the most effective way to influence healthy behaviors, but the act of community building itself enhances health.

A community-based approach to health impacts people before they require medical care and reduces the demands on the health care system. Success in promoting health through the community can create "an epidemic of health."55"

The U.S. is considered a "consumer society" with high levels of wealth, productivity, and consumption. The mentality with which Americans consume food, clothing, entertainment, automobiles, etc. results in a growing dependence on providers to give short-term gratification to wants and needs. Research indicates that Americans view health care in a similar fashion. Many people are taking less responsibility for individual health and depending upon health care providers to preserve it. However, a social solution to a societal issue is the best approach - community-based health promotion.

The importance of culture and social norms in determining health behaviors can be seen in some changes that have happened over past decades. Smoking, once quite commonplace in workplaces and even some doctor's offices, has become taboo in many social circles. If most of the members of a group do not smoke, they will encourage those who do smoke to quit. Bottled water, once rare, has become readily as accessible as drinking water. Making it available has become a "social epidemic" of sorts. Encouragement from social networks has had a dramatic impact on people's willingness and ability to engage in health-promoting behaviors.

A key element of community building and health is the concept of social capital (also referred to as social cohesion/social
support). Social capital is defined as "the degree to which a community or society collaborates and cooperates (through such mechanisms as networks, shared trust, norms and values) to achieve mutual benefits."  

The social capital built through community building positively affects health. Community building encompasses individual community members bonding together, bridging across disparate groups, and organizing to facilitate mutual cooperation and collective action. The social capital (indicated by social trust and civic engagement) created by these actions is strongly correlated with improved health.

For example, a recent study found that increasing the level of social trust by 10% had an associated 8% reduction in overall mortality.

The bonds of trust within social networks and the potential for developing community capacity through organizing reiterate that the community is the unique environment for rallying people around the common cause of health.

Community building will require identification and organization of the key assets and social networks within the community. Through research and interviews, the task force identified a broad spectrum of community assets that can be organized to achieve community building and health promotion.

- Formal and informal community groups/leaders:
  - "Abuelas"
  - Casas de oriundas
  - Barber shops / beauty shops
- Churches and other faith-based organizations
- Volunteer/social organizations
- Lion’s Club
- Fraternities and sororities
- Masons
- Jack and Jill
- Schools
  - Administrators
  - Teachers
  - Parents
  - Teams and clubs
- Local businesses
- Police and fire stations
- Neighborhood associations and community groups
- Community health providers
- Community social service providers
- Municipal governments and health departments

The above examples include informal groups and influencers such as "abuelas" (grandmothers respected and regarded as wise and influential), "casas de oriundas" (groups organized by Mexican state of origin) among the Hispanic population, and barbershops / beauty shops (locations where the community gathers to share information – particularly about health) among African-Americans. More formal community assets include church leaders, school teachers and administrators, local business leaders, neighborhood associations, volunteer and social organizations, etc.

These community assets can organize to leverage their collective skills and experiences in order to improve health in their communities. They can:

1. Identify and prioritize the communities’ issues
2. Determine how to address the issues, and
3. Organize themselves and others to implement the solution\textsuperscript{61}

This community structure is then uniquely positioned to reach the broader community much more effectively than the traditional top-down approaches to health improvement. The organized community provides a platform of mutual trust and context for individual and community improvement.

**Exhibit 38**

**Organized community structure and context info**

Informally, in many ways, the organized community already exists - coming together during times of crisis such as floods and fires. Further formalization can provide a way to systematically deal with the important health issues of the community and create the platform for launching an “epidemic of health.”
There are viable solutions to each of the barriers cited, and most of them can be dealt with through the community model proposed by the task force.

From community group exercise programs to cultural shifts in cooking practices, improvement in diet and physical activity levels can be affected at the community level. In addition to successful community initiatives, a number of larger-scale best practice programs throughout the country have demonstrated success in improving nutrition and increasing physical activity. "CATCH" (Coordinated Approach To Child Health), worked with elementary and middle schools throughout the country to
improve diet and physical activity. The program increased average daily physical activity in children by more than 35% and successfully reduced saturated fat and sodium intake. Project SPARK focused on increasing physical activity during physical education and outside the classroom without negatively impacting academic achievement. The program successfully increased physical activity among students and improved standardized test scores despite less time in the classroom.

**Smoking**

**Potential Solutions**

Task force research identified a number of factors and programs that have successfully reduced smoking prevalence. From a community-based initiatives perspective, smoking cessation programs have proven highly effective. As previously described, the “Neighbors for a Smoke-free North Side” initiative achieved a 21% reduction in smoking prevalence in the participating neighborhoods. In East Texas, the “Texas Tobacco Prevention Initiative” achieved success in smoking cessation at both youth and adult levels. This program brought together schools, law enforcement, health care providers, the media, and the American Cancer Society to build a multi-faceted approach. The program achieved a 32% reduction in 6th grade smoking and 8% to 14% reduction in adult smoking. A number of other community-based programs achieved success in smoking cessation including “Quit and Win Campaign,” “Texas Tobacco Prevention Initiative,” “Project TNT” and numerous others.

From a policy perspective, one of the most effective tobacco prevention and control strategies is raising tax rates on cigarettes. Research shows that a 10% increase in cigarette prices will result in a decline of 7% in youth smoking rates, 2% in adult smoking rates, and a 4% reduction in overall consumption. Cigarettes in the U.S. are taxed at a much lower effective tax rate than cigarettes in most other countries. In the majority of countries, the effective tax rate on cigarettes is more than 70%. In the U.S., the effective tax rate ranges from 20% to 40%. **Healthy Community** coalitions and **Healthy Dallas** can work to affect change at the legislative level as well.

Programs driven from the state level, but that involve grass-roots efforts have proven effective. The state of California has benefited significantly from the 1990 implementation of its Tobacco Control Program. Between 1990 and 1998, California saved an estimated $8.4 billion in overall smoking-caused costs and more than $3 billion in smoking-caused health care costs. Smoking-caused Medicare expenditures have declined almost $100 million annually. For every dollar invested in the program, California has saved $3.50 in health care costs and another $6 in other smoking-related costs.

**Alcohol**

**Potential solutions**

Because alcohol abuse is a more wide-spread problem than drug abuse, the task force believes focus on alcohol abuse will yield the greatest impact. Through research of numerous programs, the task force identified best demonstrated practice programs that successfully address alcohol abuse.

**Project Northland**

As described above, this program involved multiple layers of the community and various channels to reduce drinking among
middle-school aged children. The program was highly successful with a 38% and 37% reduction in drinking among 7th and 8th graders respectively.

**Guiding Good Choices**

This grass-roots program focused on training parents how to reduce the risk of drug and alcohol abuse by improving parenting skills related to risk reduction, refusal, conflict resolution, and setting standards. The program was highly successful with up to a 40% reduction in alcohol and marijuana use, a 54% reduction in progression to more serious substance abuse, a 26% increase in the likelihood that non-users would remain drug free.

**Project Treat**

This program in Wisconsin united doctors in various communities and trained them to provide intervention and treatment for heavy drinkers. Although the program was "treatment" focused, it was highly successful in affecting behavioral change. The program reduced binge drinking among participants by 46%.

Other programs that successfully addressed alcohol use include: Big Brothers and Big Sisters of America, Life Skills Training (LST), and others.
Examples of Best Demonstrated Practice (BDP) Programs

Characteristics of successful community-based programs

In validating the focus on community-based health initiatives, the task force studied numerous programs from across the country and throughout the world. The task force identified "best demonstrated practices" (BDP) for health promotion programs to provide ideas to communities and to understand the potential impact of the Healthy Dallas initiative.

In studying numerous programs, a few key themes emerged that characterized successful and unsuccessful programs. Successful programs were:

• Community based
  - Designed by residents
  - Implemented by residents
  - Tasks gave sense of ownership/responsibility

• Focused on specific demographics
  - Age
  - Neighborhood
  - Race

• Supported by media

• Supported by an array of social networks
  - Peers
  - Parents
  - Churches
  - Schools

• Reinforced through feedback

Programs with these characteristics generally achieved desired outcomes, had greater longevity, and created momentum for future initiatives.

Key themes emerged for unsuccessful programs as well. The less successful programs were:

• Composed of mandated activities
  - Inflexible to community needs
  - No sense of empowerment

• Unfocused
  - Trying to address too many risk factors
  - Trying to address the entire community, as opposed to specific subgroups

• Taught only by experts/adults, not modeled by peers

• Lacked continued reinforcement of desired behavior

These key findings of successful and unsuccessful programs can be useful in screening potential initiatives for implementation in local communities.

To this end, the task force created a database of programs that generally followed the characteristics of successful programs. This database will provide a "menu" of off-the-shelf and customizable programs for the communities to implement (see the task force's "Best Demonstrated Practice Program Database" for comprehensive view of BDP programs).

Some of the programs proved especially successful and utilized a program structure similar to the model proposed by the task force. These programs deserve special consideration.

North Karelia project

North Karelia is a province in Eastern Finland that had one of the highest rates of heart disease in all of Europe. The local
community, in concert with the government, businesses, the World Health Organization, and other non-profit groups, put together a plan to reduce the prevalence and incidence of heart disease. Initiatives included grass-roots campaigns in supermarkets, one-on-one visits to citizens, health education and awareness media campaigns, and nutrition education programs.

The project was a huge success. Over time, North Karelia achieved a 73% reduction in coronary heart disease mortality and a 39% reduction in smoking among men. Although North Karelia is very different from Dallas County demographically and culturally, the principles used to achieve success are very applicable to the Healthy Dallas initiative.

Neighbors for a smoke-free North Side

A neighborhood in St. Louis comprised primarily of low-income, African Americans wanted to reduce the prevalence of smoking in the community. An extensive group of neighborhood volunteers banded together along with representatives from a non-profit organization to establish Wellness Councils charged with directing and organizing initiatives to curb smoking. The councils were supported by a city-wide advisory panel made up of representatives from major corporate, medical, religious, and community groups.

The campaign ran for 24 months and involved a wide-range of activities including smoking cessation classes, billboards, door-to-door campaigns, and a “gospelfest.” The program was highly successful with a 21% decline in prevalence of smoking in program neighborhoods.

Exhibit 41
North Karelia Project: organization

Responsibilities:
- Central planning for the program
- Advisory board
- Broad-based local, national, international support

Board of directors
- WHO representatives
- County medical officers
- Finnish Heart Association reps
- National Health Institute reps

North Karelia project office
- Project doctors/ directors
- Paid staff members
- Physician chiefs from local health centers

Community groups
- Health organizations
- Sports organizations
- Farmers/ food industry
- Housewife group
- Public health nurses

Individual community volunteers

Responsibilities:
- Organize activities
- Recruit volunteers
- Resource for help in specific areas (e.g., health education, smoking, nutrition)

Responsibilities:
- Execute programs
- Fulfill motto of “We Participate”

Source: www.kantele.com, www.cshpstitute.org, Public Health Medicine, European Heart Journal
Coordinated Approach to Child Health (CATCH)

Schools across the country implemented CATCH programs to improve children’s health. Teachers, administrators, and parents became involved in offering healthier cafeteria food, increasing vigorous physical activity during physical education classes, and incorporating health curriculums in elementary schools. The program focused on a multi-tiered approach to children’s health by improving nutrition, physical activity, and education. The program was very successful and resulted in significantly greater physical activity and improved nutrition habits among program participants than non-participants.

Project Northland

Communities in 24 school districts across northeast Minnesota formed task forces aimed at reducing alcohol use among middle school students. The task forces were comprised of a cross-section of the community including government, law enforcement, school, business, health, and parent representatives. The program used books, fairs, peer group activities, and other events to promote alcohol-free activities. The program achieved great success with a 38% reduction in 7th grade drinking and a 37% reduction in 8th grade drinking.
Black Churches United for Better Health

Churches in North Carolina formed Nutrition Actions Teams of 5-7 members from each congregation. These team members attended training sessions on nutrition, and in turn conducted at least two training sessions apiece in their own congregations. Cookbook chairmen from each church assisted members in modifying favorite recipes to be more nutritious, and more fruits and vegetables were served at church functions. Pastors also promoted the program from the pulpit. The program was successful at driving long-term change: two years after the project ended, participants still consumed an average of one more fruit or vegetable per day.
Focus on highest potential for impact targets

Dallas County is a large area with a population of more than 2.2 million people. It will be important for any effort aimed at improving health to prioritize. Most appropriate method is to first target areas and populations with the highest potential to have an impact.

Geographic Disparities

There are staggering disparities in the mortality data across different areas within Dallas County. The least healthy areas of Dallas County, as defined by the 12 service areas examined in Parkland’s Community Health Checkup, have 2-5 times higher mortality rates than the healthiest areas in the county.

A comparison of the relative health of the 12 service areas with relative health ranking determined by mortality and hospital discharge rates shows that the Stemmons Corridor and Northern Corridor are the healthiest, with West Dallas and South Dallas the least healthy. A comparison of mortality rates (deaths per 100,000 people) and hospital discharge rates among these areas across certain diseases shows that the mortality and discharge rates in South Dallas and West Dallas are consistently higher than in Stemmons Corridor and Northern Corridor, across many different diseases and conditions.

Using these data, one can tell that the potential to have an impact will, in general, be greater in areas such as South and West Dallas than in the Northern Corridor and the Stemmons Corridor. However, these 12 areas encompass multiple neighborhoods. Once a proposed area is identified, the specific health data for that geography should be reviewed and efforts geared toward the specific issues found in that community.

Exhibit 43
Healthiest to least healthy areas

Exhibit 44
Least healthy vs. healthiest mortality rates

*Relative health of neighborhoods determined using combination of age-adjusted mortality and morbidity (hospital discharge) rates

Source: Our Community Health Checkup 2002 for Dallas County and Texas Dept. of Health, Vital Statistics...
Demographic and Socioeconomic Research and Education, 2002.

Given the major changes expected in our population, a review of the health disparities by race and ethnicity is important.

A review of the behavior data by race/ethnicity shows there are general differences. A higher percentage of Hispanics and blacks tend to consume inadequate amounts of fruits and vegetables than whites. Independent of race, most of the population gets an inadequate level of physical activity. While childhood obesity is an issue for all races, the levels tend to be higher for black and Hispanics.

Race/ethnic Disparities

Dallas County is expected to grow significantly over the next 40 years—from a population of 2.2 million in 2000 to 5.8 million in 2040. During that time period, a dramatic shift in the ethnic makeup of the population is expected. The Hispanic population of the county is expected to grow from less than 700,000 in 2000 to almost 4.3 million by 2040. Almost three-fourths of all County residents will be of Hispanic origin by 2040. The African-American population will also grow from around 440,000 in 2000 to more than 630,000 by 2040—11% of the projected population.
Smoking and heavy drinking are behaviors that tend to be more prevalent in the white population in Texas than with blacks and Hispanics.

Again, once a proposed area is identified, the data should be analyzed based upon race and ethnicity. Behaviors that have the potential for the highest impact should be determined and the programs and initiatives should be tailored to the characteristics and cultures of these groups for maximum effectiveness.

Social inequality and health outcomes

In addition to links between health behaviors (and thus health outcomes) and race/ethnicity, existing research has also demonstrated that there are important disparities in health status between different socioeconomic groups. For example, phase 5 of the Whitehall II study among British civil servants examines the effects of financial insecurity in determining inequalities in health. This perspective is further explained in writings by Margaret Whitehead, The Milbank Quarterly, Vol. 76, No. 3, 1998.

Moreover, Johan Muckenbach and Philippa Howden-Chapman provide an ample review of the findings related to the link between disease and premature death and levels of income and education, in Perspectives on Biology and Medicine, Summer (2003).
There is also ample evidence, as pointed out by Joseph Graves (The Race Myth: Why We Pretend Race Exists in America, 2004), that differences in race and health status are a result of socially constructed outcomes more so than biological outcomes. Graves' central premise is that there is greater variation within socially constructed races than between them, yet biological differences are often presumed to be an acceptable focus in areas of medicine, disease, and other public-oriented concerns. His work suggests that if we address some of the social inequalities that exist in our communities we will in-turn address some of the health disparities that exist in our communities.

In many cases, an effective means of addressing health outcomes can be to address the social inequalities contributing to the unhealthy behaviors and outcomes in the first place. While social inequalities will be difficult to impact through programs targeted at health, it is important to keep these differences in mind as one tries to understand what drives health outcomes and therefore how they can be best affected.
Focus on systemic inhibiting issues

Community Development

In many of the communities in Dallas, there are some basic community development issues that must be addressed before programs focusing on the four target behaviors can be implemented. In many areas, the streets are not safe and crime prevention efforts are necessary.

Some communities are rampant with properties, both residential and businesses that have code violations. Liquor stores are prevalent and often the only type of retail available. In addition, prostitution and illegal drug use frequently take place unchallenged.

These and other issues are in fact health-related issues and should be addressed. As mentioned previously, efforts that increase social integration, social support and social capital have significant health benefits.

Community organizing, voter participation and exercising of some political will can go a long way in addressing these issues.

In addition to community development efforts, there are a number of other issues that were deemed to be significant systemic inhibitors to healthy behaviors:

- Increasing the availability of supermarkets
- Increasing availability of safe recreational/exercise areas
- Increasing number and quality of corporate wellness programs
- Improving access to health insurance
- Promoting healthy buildings and living conditions
- Expanding restaurant smoking ban throughout the county
- Improving quality of food served/eaten in schools and eliminating access to soda and other junk food
- Increasing employer provision of defibrillators
- Increasing preventive treatments

The initial research effort of the task force focused on the first four of these issues—supermarkets, exercise facilities, insurance access, and employer wellness programs. Similar research efforts should be completed for the remaining areas at a later date.

"Information about inexpensive nutritious foods is also an important part of an anti-obesity/disease prevention campaign, as many Texans live in poverty."

-Texas Institute for Health Policy Research

Supermarkets

Lack of supermarkets in some lower-income areas of Dallas County is a major concern. The presence of a supermarket significantly increases the likelihood of healthy eating. A recent study shows that the availability of one supermarket in close proximity results in a 50% increase in the likelihood of residents meeting dietary guidelines.
Again, using Parkland's 12 service areas, we see significant disparities in access to supermarkets within the county.

**Exhibit 53**

**Considerable difference in access to supermarkets exists between least and most healthy areas**

<table>
<thead>
<tr>
<th>Least healthy</th>
<th>Most healthy</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Dallas</td>
<td>3.6</td>
</tr>
<tr>
<td>West Dallas</td>
<td>0.0</td>
</tr>
<tr>
<td>Northern Corridor</td>
<td>11.3</td>
</tr>
<tr>
<td>Stemmons Corridor</td>
<td>7.4</td>
</tr>
</tbody>
</table>

Source: Yahoo yellow pages, U.S. Census

There is only one supermarket in each of the two unhealthier areas in the county, South Dallas and West Dallas (South Dallas and West Dallas are defined by the Parkland designated zip codes).

There are a number of grocery stores, however the quality is very low. Most of the stores primarily sell beer and liquor. The selection and quality of fruits and vegetables is limited and many fresh-food items were being sold past the "sell-by" date.

The cost of healthy foods in these areas is also greater than in other areas of Dallas County where supermarkets are more prevalent.

**Potential solutions**

Supermarket owners cite their inability to run supermarkets profitably in low-income areas as the primary reason for the dearth of supermarkets in these areas. Theft and shrinkage are thought to be too high, and acquiring appropriate land is thought to be too difficult.

However, there are many examples to refute the belief that supermarkets cannot operate profitably in the low-income areas. If managed properly, supermarkets in low-income areas can be some of the most profitable stores in their chains. The following example is just one of many in which the community worked with the government and business communities to overcome this problem.
Rochester, NY

In Rochester New York, the community came together to overcome the disparity in supermarket availability. As with Dallas County, Rochester found that supermarket availability in low-income areas was limited with higher average prices and limited selection. The community targeted areas with 30+% fewer supermarkets than high-income areas.

To attack the problem the community created a public/private partnership between the local government and Tops Supermarket.

To support the initiative, the city encouraged people to visit and support the supermarkets. To address the concern for theft and shrinkage, the police station was reassigned to the area to promote safety.

The program has been a huge success. In the Upper Falls area where no supermarket has been since 1989, the store there is thriving. The initial smaller location has been expanded to a full-size supermarket and four new stores have been built.

Exercise facilities

With respect to exercise facilities, availability is not an issue. There are more facilities per person in West Dallas and South Dallas than in healthier areas of the county.

Interview with residents in the South Dallas and West Dallas areas suggest there are other barriers to exercising that need to be addressed.

A big difference exists between available exercise facilities and safe and available exercise facilities. Many of the parks and recreational facilities available to South and West Dallas residents are considered unsafe by residents.

Many of the residents of South and West Dallas that would like to exercise have inflexible jobs and very busy schedules.
Many of the exercise facilities available to residents have restricted hours and do not coincide with work schedules.

Transportation is also an issue for a number of South and West Dallas residents. Many residents do not have cars and public transportation is difficult to coordinate for exercise.

The findings from interviews with residents in South Dallas and West Dallas are consistent with national research on differences in physical activity by income level. Because of all the barriers, and the general motivation issues that exist across all income levels, physical activity rates are significantly lower among low-income individuals than those with higher incomes.

**Potential solutions**

Fortunately, these issues can be dealt with primarily at the community level.

**Safety** - Communities can work with local police precincts to better patrol unsafe areas. The local governments can work to eliminate code violations of all kinds. Communities can also work with the city government to improve lighting in and around locations.

**Restricted hours** - Communities can work with facility owners - schools, churches, nonprofits and the city - to keep facilities open later and on weekends. Volunteers and other unpaid staff could potentially be used to keep facilities open later.

**Transportation** - Initiatives to create carpool exercise programs or ridesharing could be effective. Also, communities can search out and make available areas and facilities that are closer to groups of interested community members.

**Motivation** - Peer support is generally the most effective method of overcoming lack of motivation. Community programs are in place and can be implemented that apply incentives and accountability to encourage use of the exercise facilities. Walking/exercise groups can be formed to provide both peer support and safety.

**Insurance access**

The percent of uninsured Americans grew to almost 16% or 45 million people in 2002. Texas has the highest rate of uninsured in the U.S. with statewide uninsured rate of 28%, with Dallas county at 25%. Dallas county also has a high rate of uninsured children with 100,000 children lacking insurance in 20026.

**Exhibit 58**

Growing number of uninsured

Source: The Kaiser Commission on Medicaid and the Uninsured, March 9, 2004
Lack of insurance is a major health problem. The uninsured are more likely to postpone medical treatment and are four times more likely to use the emergency room as a regular place to receive treatment. The uninsured suffer more frequent and more severe illnesses than the insured and are 43% more likely to die prematurely.

Lack of insurance is also linked to financial difficulty. The uninsured are hospitalized 50% more than insured patients for “avoidable” conditions, causing them to miss work. They often have lower annual earnings because of poorer health.

Lack of insurance is also tied to broader community issues affecting more than the uninsured population. According to the Institute of Medicine, “uninsurance at the community level is associated with financial instability of health care providers and institutions, reduced hospital services and capacity, and significant cuts in public health programs, which may diminish access to certain types of care for all residents, even those with insurance.”

Cost of uninsured

The estimated uncompensated (costs for patients without or with inadequate health coverage) health care coverage in the U.S. is $125 billion. For Texas, the uncompensated coverage is an estimated to be more than $7 billion. Although the federal government reimburses states a portion of uncompensated care, physicians and the health care system bear a large burden of the costs. These costs do not include the negative effects due to over-crowded emergency rooms, reduced hospital services, and reduced care suffered by all patients.

Potential solutions

The increasing number of uninsured in the U.S. and Texas is attributed to a number of factors.

The rising cost of health care is a primary driver. Employers are the primary providers of insurance in the U.S. However, the cost for health care insurance premiums costs have risen at rates four times inflation. Many employers feel they can no longer afford to offer health insurance and have dropped insurance as an employee benefit.

Dramatic rise in insurance premiums

Exhibit 61
Costs of health care per employee rising

<table>
<thead>
<tr>
<th>Year</th>
<th>$ per employee for health care costs</th>
<th>CAGR (93-95)</th>
<th>CAGR (95-2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>$3,781</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>$3,746</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>$4,251</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>$4,097</td>
<td>0.5%</td>
<td>3%</td>
</tr>
<tr>
<td>2000</td>
<td>$4,428</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


The economic downturn in recent years created a fiscal crisis at the state level. Because Medicaid, the primary source of insurance for the poor, is funded at the state level, many states reduced benefits and coverage as a remedy to state fiscal crisis.

The rising number of immigrants (both legal and illegal) also contributes to the number of uninsured. In Texas, more than 60% of uninsured are Hispanic, with a large portion of those illegal immigrants.

There are a number of programs that have been successful in addressing these issues. Highlights of some examples follow:

**LA County Children’s Health Initiative**

Los Angeles County and a coalition of health care and community organizers worked together to expand availability of health coverage and get uninsured children enrolled in the programs. The programs utilized grass-roots organizations - primarily faith-based groups to reach out to the community. The program was able to enroll 8,000 children in insurance programs in less than two months.

**Project Access**

This program, successfully implemented in Dallas County as well as many cities throughout the country, provides coordinated “charity” care for the uninsured. In Dallas County 500+ physicians and 13 hospitals participate in the plan. “Members” of the program receive a Project Access ID card, much like a private insurance card and prescription card. A central database is used to coordinate referrals and track outcomes. The program has been successful in achieve measurable outcomes such as a 28% reduction in ER visits and 80% reported health improvement in participants.

**Cambridge Health Alliance Volunteer Health Advisors**

This program, based in Somerville, Cambridge, and Everett, Massachusetts, works collaboratively with faith-based and community-based organizations to recruit, train, and support a sustainable volunteer workforce. Following training, the volunteer recruits then provide culturally and linguistically appropriate outreach and health education to under-served and hard-to-reach populations in their own communities.

There are currently 210 volunteer health advisors in the program who represent the Haitian, Brazilian, Latino and African-American populations. These culturally and linguistically competent advocates (previous health or medical training is not a requirement) are assisting community members to enter and successfully navigate the complex U.S. health care system. With the support and guidance of Alliance staff, the advisors provide education and outreach within their own communities. Their efforts are helping local residents gain greater access to available health care services as well as help in applying for health care coverage or finding a primary care provider.

The education and outreach efforts provided by advisors in 2003, are estimated to be equivalent to more than $100,000 worth of
services had they been provided by paid staff.

**Corporate wellness**

Given the amount of time people spend at work, the participation of the business community in health promotion is vital.

One of the many ways businesses can get involved in promoting health is through corporate wellness programs.

The benefits of corporate wellness programs are well documented—with most programs yielding a strong return on investment. Employees involved in corporate wellness programs are more productive and healthier.

**Exhibit 62**

**Dollar saved for every dollar spent on wellness programs**

![Bar chart showing dollar saved for every dollar spent on wellness programs](source)

**Source:** [www.fitresource.com](http://www.fitresource.com), [www.ensuringsolutions.org](http://www.ensuringsolutions.org), [www.fitlaunch.com](http://www.fitlaunch.com), [www.naturalhealth-care.ca](http://www.naturalhealth-care.ca), [www.healthleaders.com](http://www.healthleaders.com)

However, one of the key challenges to corporate wellness programs is the relatively low participation rates among employees.

Some companies such as Johnson & Johnson have overcome this problem by offering real incentives for participation. J&J offers employees a $500 discount on health insurance premiums. Novato Community Hospital offered employees a $100 grocery gift certificate if they participated at a 70% rate or better.

**Exhibit 63**

**Reduction in absenteeism**

![Bar chart showing reduction in absenteeism](source)

**Source:** [www.fitresource.com](http://www.fitresource.com), [www.ensuringsolutions.org](http://www.ensuringsolutions.org)
In addition to improving the health of their own employees, employers should think about how they can become more involved in the health of the broader community. Businesses can partner with community organizations to promote community development, or large employers can partner with small employers, enabling these smaller employers to take advantage of wellness programs designed and run by the larger organizations. Businesses can also provide funding, expertise, employee volunteers, meeting locations, materials, etc. Finally, they can choose to locate their businesses in low-income communities (e.g., supermarkets and other retailers).
Recommendations

- *Healthy Dallas* will work to affect broad community-wide changes that promote health and remove barriers to healthy outcomes. Potential areas of focus include:
  - Increase the number of supermarkets and stores that offer healthy, affordable food in under-served areas
  - Increase the usability of recreational locations and other areas conducive to physical activity
  - Involve the business community to a greater degree in improving the health of Dallas County – promoting employee health, partnering with schools, sponsoring initiatives, etc.
  - Improve access to insurance and primary care for all Dallas County citizens
  - Achieve broader adoption of the restaurant smoking ban
  - Eliminate soda from school vending machines
  - Affect wide-spread adoption of on-site defibrillators by employers
  - Work with employers and health care providers to increase time and opportunity for preventive treatments
  - Support legislation giving weight to employer-sponsored insurance benefits in awarding government contracts
  - Improve Dallas County air quality and home conditions, which are the leading causes of asthma among children
Formation of Healthy Dallas

Proposed organization structure

After analyzing the existing research on community building and studying the community-based BDP programs, the task force developed a model it believes will most effectively promote health in Dallas County. Key to this model is the grass-roots, bottom-up approach that empowers the communities to improve health and affect change. Additionally, this model reaches people in the community through many different channels. One-on-one sessions with task force members reinforced the belief that the most effective health promotion programs will touch people through a number of different channels and through an array of trusted “influencers.”

Exhibit 64
Healthy Dallas Model

<table>
<thead>
<tr>
<th>Role/ responsibilities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Build community trust</td>
</tr>
<tr>
<td>• Identify/mobilize community assets</td>
</tr>
<tr>
<td>• Prioritize initiatives</td>
</tr>
<tr>
<td>• Provide “manpower” to drive local programs</td>
</tr>
<tr>
<td>• Obtain needed resources from Healthy Dallas Coalition</td>
</tr>
<tr>
<td>• Maintain database and/or website of programs</td>
</tr>
<tr>
<td>• Share knowledge/expertise</td>
</tr>
<tr>
<td>• Link Community groups w/resources</td>
</tr>
<tr>
<td>• Provide training/oversight</td>
</tr>
<tr>
<td>• Raise/allocate funds</td>
</tr>
<tr>
<td>• Provide political capital</td>
</tr>
<tr>
<td>• Track and evaluate outcomes</td>
</tr>
</tbody>
</table>

Healthy Community Coalitions
The key element to the model is the bringing together of community groups and leaders into Healthy Community coalitions. These coalitions will be the foundation for the Healthy Dallas model. The coalitions will be comprised of community “influencers” who band together in pursuit of a common cause – improved health. The primary roles and responsibilities of the Healthy Community coalitions are to:

• Build and maintain community trust
- Identify and mobilize community assets
- Prioritize initiatives
- Provide “manpower” to drive coalition programs
- Obtain needed resources and expertise from Healthy Dallas

Most communities already possess valuable capabilities that simply need to be identified and organized. Through asset mapping, the Healthy Community coalitions will identify what community level resources are available and energize participants to contribute. When the capabilities of the community are understood, the Healthy Community coalitions can begin prioritizing initiatives most important to their communities. The central Healthy Dallas group will provide training, and access to tools and data to help coalitions accurately assess community health and prioritize initiatives through a Community Health Assessment process.

When priorities have been determined, the coalitions will determine which programs best match the skills, culture, and characteristics of the community. The central Healthy Dallas group will provide a menu of programs (that include efforts to address the four targeted behaviors as well as the systemic inhibitors to health) and expertise on selection and implementation. With programs selected, the Healthy Community coalitions will mobilize the “manpower” and capabilities to execute the programs. The central Healthy Dallas group will provide resources as necessary to implement the programs and measure the success.

**Healthy Dallas resource group**

Supporting the community coalitions will require the creation of a central Healthy Dallas resource group. This central body will be comprised of a broad range of health, business, government, non-profit, academic and Healthy Community Coalition representatives. The primary purpose of the Healthy Dallas resource group is to serve as a resource to the Healthy Community coalitions. The primary roles and responsibilities are to:

- Share knowledge and expertise
- Raise and allocate funds
- Link community coalitions with resources
- Provide political capital
- Maintain a database and/or website of programs
- Provide training to coalitions
- Provide oversight, and accountability to coalitions
- Track metrics and evaluate outcomes
- Coordinate and share learnings with other health-related initiatives in Dallas
County and around the country, including but not limited to:

- Mayor Laura Miller’s “Lighten Up Big D”
- YMCA’s “Activate America: Pioneering Healthy Communities”
- The Cooper Institute’s “Texas on the Move”
- Parkland Hospital’s Community Oriented Primary Care system
- Texas Institute for Healthy Policy Research’s “Shared Vision” project

Healthy Dallas will first begin working with community groups that are already in place and have expressed interest in forming Healthy Community Coalitions. As the model becomes more established, awareness is increased and more community groups and leaders step forward to participate, Healthy Dallas will assist them in forming the coalitions and executing their chosen initiatives. Although the coalitions are responsible for executing the initiatives, Healthy Dallas will provide day-to-day support and accountability to coalitions.

Based on research and analysis on impact potential, Healthy Dallas will recommend disease and behavior priorities to the coalitions. Healthy Dallas will also track secondary health and behavior metrics and provide expertise to assist the coalitions in designing studies and measuring success.

Healthy Dallas will also maintain a “menu” of best demonstrated practices programs for coalitions to learn and choose from. This database will be frequently updated and improved to provide the best available resources to coalitions.

In order to fully support the community coalitions, Healthy Dallas will also need to support these groups in addressing some barriers to promoting health in local communities. Some of these barriers may need to be addressed first, before focus turns to the four areas of behavior, so that later focus on behaviors has an increased chance of success. Examples of some of these issues include the need for increased animal control and code compliance, as well as other community building efforts.

Research has demonstrated that community building efforts, such as strengthening the political voice of the community through activities such as increased voter participation, are linked to health outcomes. As such, these issues must be included as health-related activities, and will likely be supported by Healthy Dallas should a community coalition decide/need to focus
on them before more directly addressing the four targeted behaviors.

**Tracking, measurement and evaluation of outcomes**

Critical to the success of the Healthy Dallas initiative will be systematic measurement at the program, community, and pre-defined geographic levels. Outcome measurement is important to evaluate success, improve strategies, gain credibility and positive press, enhance staying power, and enable fund raising.

Existing reports and databases as well as mapping can be used to track mortality rates, disease prevalence, and hospital discharge rates for pre-defined areas within Dallas County. Particularly useful sources of this information include the Community Health Checkup from Parkland Hospital and DallasIndicators.org and AnalyzeDallas.org from the Foundation for Community Empowerment. The task force encourages the owners of these sources to continue to maintain and enhance them, as they are outstanding sources of information about health in Dallas County.

However, in addition to leveraging existing sources, primary research and custom metrics will be required for two reasons. First, the desired health outcomes are longer-term in nature. In order to measure incremental success ("quick wins"), short-term behavioral improvement must be tracked at the program level relative to non-participating groups. Second, existing reports provide data at census tract or planning district levels. Communities and neighborhoods do not necessarily follow these set geographic boundaries. Custom metrics will be necessary to accurately reflect the varying composition of each community.

**Healthy Dallas** membership will have people from academia and/or members with expertise on research design and statistical methods who will provide coalitions with expertise and advice on how to design and execute statistically accurate studies for their programs.

**Implementation plan**

**Organizational requirements**

In order to function effectively on an ongoing basis, Healthy Dallas will need to possess the following capabilities:

- **Research** – the ongoing identification of best practices; research into and designation of areas of focus; writing of white papers about Healthy Dallas activities and accomplishments, etc.

- **Outcome tracking** – development of surveys and other instruments to track program outcomes; collection of data through surveys and other methods as appropriate/required; analysis of outcome data

- **Funds development** – raising of funds for Healthy Dallas operational budget; assistance/guidance in community coalition fundraising for program implementation; development of relationships with donors and potential donors; oversight and coordination of requests to foundations, government, etc.; writing of grants

- **Resource development** – development and maintenance of resources needed for the group to function effectively, including but not limited to: a standardized model for organizing and training community coalitions, a community health assessment toolkit, a website explaining the Healthy Dallas
model with information on how to get involved, a database of best practice programs, and other technology required to support programs

- Marketing and communications - development of a marketing/messaging strategy to promote Healthy Dallas and drive awareness of its goals, particularly highlighting program successes; coordination with local media outlets to spread the message; provision of messaging assistance and expertise to community coalitions

- Administration - financial oversight and administration of funds; administrative assistance with scheduling of meetings, production of materials, etc.

- Governance - structure of decision-making processes; leadership in the execution of these processes

- Organizers and trainers of service providers - initiators of the integration of community groups into community health coalitions; guidance for community coalitions on self-assessment process, lessons from best practices, etc.; liaisons between community coalitions and Healthy Dallas group

- Service providers - community groups who will form the basis of community coalitions

- Health enablers - members with political capital and/or broad areas of influence and responsibility, who are willing to use this influence to advocate long-term and/or policy changes required to enable success of community health initiatives

- Conveners - members with ties into many sections of the Dallas County community, who can bring together the appropriate groups of conveners, service providers, etc.

These capabilities may be brought to Healthy Dallas through the active participation of Healthy Dallas members, or, when gaps exist, may be developed by the central Healthy Dallas resource group.

**Exhibit 67**

**Healthy Dallas resource group**

Source: Team research and analysis

**Staffing and funding requirements**

While many members of the Healthy Dallas group have capabilities that can be leveraged to support the initiative, there will need to be at least a minimal number of paid staff members dedicated to the project full time. These paid staff members will coordinate the efforts of Healthy Dallas members, as well as provide support in areas where Healthy Dallas members are unable to provide assistance and/or the burden of doing so becomes too great.

At inception, this paid staff may consist of only one person, an executive director of Healthy Dallas. This person’s responsibilities would include coordinating and overseeing the preparations needed to launch the Health Community coalitions as well as raising funds for the ongoing Healthy Dallas operational budget.

Over time and as funding allows, this paid central staff will likely expand to include additional full-time dedicated people to supplement capabilities which may be too difficult and/or burdensome for Healthy Dallas members to provide. These needs will become more concrete as the initiative evolves and the resources which Healthy
Dallas members are capable and willing to donate become clearer. However, an initial assessment of the group’s requirements indicates that the group could function most effectively with 3-5 additional full-time staff members, with the following responsibilities:

- 1-2 organizers/ liaisons to work with community coalitions, assist them with organizing, provide guidance on best practice programs, and help connect them with the resources they need
- 1-2 analysts/ researchers to facilitate outcomes tracking, data analysis, and research to validate impact of Healthy Dallas initiatives
- 1 fundraiser to coordinate and oversee applications for funding for community coalition programs

Estimated funding required to sustain the central Healthy Dallas organization on an annual basis is:

<table>
<thead>
<tr>
<th>Amount</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100K</td>
<td>Executive Director</td>
</tr>
<tr>
<td>$300K</td>
<td>Additional staff</td>
</tr>
<tr>
<td>$100K</td>
<td>Operating expenses</td>
</tr>
<tr>
<td>$500K</td>
<td>Total</td>
</tr>
</tbody>
</table>

As this initiative is in its very early stages, no funding has yet been pursued and no funding commitments received. Some potential sources of funding for the project, which the group is likely to pursue, include:

- Government entities – City, county, state and federal governments
- Groups with an interest in promoting health in Dallas County – hospital systems, insurance companies, employers, others
- Dallas-based foundations – Dallas Foundation, Meadows Foundation, Communities Foundation of Texas, others
- National foundations with an interest in health – Kellogg Foundation, Robert Wood Johnson Foundation, Grantmakers in Health, others
- Other groups with an interest in promoting health nationwide – pharmaceutical companies, insurance companies, health care industry associations, others

Timing of rollout
Before the community coalitions can be organized and rolled out, there is a fair amount of preparation that will need to be done. This includes but is not limited to:

- Development of a plan for how community coalitions will be organized, standardized enough so that multiple organizers can be trained, yet customized enough to be responsive to (indeed driven by) the unique characteristics, resources and needs of individual communities
- Development of training materials to teach community groups about the importance of prevention as a key component of health, and the reasons for using a community-based approach
- Development of a system of ongoing metrics tracking to set goals and monitor progress. This may include, for instance, development of a self-managed survey that communities can conduct to track their own progress in a meaningful way, though not necessarily scientifically precise
- Development of a community self-assessment tool that community groups can apply soon after organizing to identify the most pressing health needs of their communities
• Development of a website to drive interest in Healthy Dallas and encourage participation by community groups

• Expansion and refinement of the best practice programs database, with emphasis on best practice programs in Texas, in urban areas, and aimed at targeted ethnic groups

It is estimated that these tasks will require at least six months of work before the initial community coalitions are formed and local community programs are ready to be launched. Initially, Healthy Dallas plans to form 3-4 community coalitions to serve as “pilot programs” for the community coalition model. As these groups get underway and lessons from their start-up are incorporated into the model for community coalition organizing, then Healthy Dallas will expand to form more groups, eventually hoping to cover areas across all of Dallas County.
Recommendations

- Bring together community groups into Healthy Community coalitions, thereby enabling health improvement at the community level
  - The community coalitions should be comprised of community “influencers” who are not necessarily health experts. “Influencers” can come from a broad range of formal and informal groups including religious, ethnic, interest, cause or other identifiable networks such as “Casas de Oriundas” among the Mexican-American population
  - The coalitions should reach out to existing community groups and networks as well as create opportunities for all interested groups and “influencers” to become involved in coalition initiatives
  - The community coalitions should be responsible for prioritizing community issues and implementing programs to improve community health

- Form a county-wide, cross-sector Healthy Dallas initiatives resource group
  - The Healthy Dallas group should be comprised of a broad range of health, business, government, non-profit and community coalition representatives
  - Healthy Dallas should provide the community coalitions with information and advice about best practices, health and community building, fund-raising, political capital, and other support

- Healthy Dallas and the Healthy Community coalitions will set goals and track metrics to evaluate outcomes and measure success
  - Healthy Dallas and the community coalitions will continually track and monitor primary and secondary metrics
  - Healthy Dallas and the community coalitions will track concrete, measurable impact. Particular emphasis will be placed on identifying short term metrics and success stories to demonstrate early results, motivating community groups and program participants

- Develop a communication strategy to drive public awareness of and participation in the Healthy Dallas initiatives
  - Healthy Dallas should develop a broad, consistent messaging campaign aligned with Healthy Dallas goals
  - Messaging efforts should identify and highlight short and long-term success stories
  - Healthy Dallas should provide communication and messaging expertise to community coalitions

- Create a database of best-practice programs to assist community coalitions in achieving their community health goals
  - Numerous, successful programs are in place nationally and around the world that can be applied “as is” in Dallas County, or modified to meet local community characteristics
  - Emphasis will be placed on identifying successful programs in Texas as well as programs that are sensitive to cultures and characteristics of different ethnic groups, particularly those most prevalent in the Dallas County area
• Healthy Dallas should develop a series of guidelines and recommendations for effective program development and implementation
  - Healthy Dallas should provide training and guidance as needed to assist community coalitions in program implementation

• Individual Healthy Community coalitions should select their own programs and prioritize their own issues. However, based on research and analysis, Healthy Dallas will focus support on specific areas where community coalitions can be particularly effective. Areas the coalition will support include:
  - Improved nutrition
  - Increased physical activity
  - Decreased tobacco use
  - Decreased drug/alcohol use
  - Increased early childhood intervention
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22 International Agency for Research on Cancer, June 2002
23 American Lung Association
26 National Center for Tobacco Free Kids. www.tobaccofreekids.org
30 Substance Abuse: The nation’s Number One Health Problem, Feb. 2001.
31 National Center for Health Statistics
35 National Institute on Alcohol Abuse and Alcoholism. Abbey et al. “Alcohol and Sexual Assault.”
36 Substance Abuse: The nation’s Number One Health Problem, Feb. 2001.
37 National Organization on Fetal Alcohol Syndrome
39 Mann et al. “Age 21 Cost-Benefit Analysis of the Title I Chicago Child-Parent Centers” (February 2002), National Institute of Child Health and Human Development
43 American Academy of Child and Adolescent Psychiatry
45 American Cancer Society, “Cancer Prevention & Early Detection Facts & Figures 2004”
46 Our Community Health Checkup 2002 for Dallas County
47 Asthma in America Survey Project
49 National Center for Health Statistics, National Hospital Discharge Survey
50 National Center for Health Statistics, National Ambulatory Medical Survey
51 National Heart, Lung and Blood Institute Chartbook, U.S. Department of Health and Human Services, National Institute of Health, 2004
54 From a phone interview with Dr. Low on 7/13/04
55 Quote attributed to Dr. Jonas Salk, developer of the polio vaccine
56 McKnight, John L. “A Twenty-first Century Map for Healthy Communities and Families.” Institute for Policy Research, Northwestern University. 1996.
57 See also: Marmot, Michael “The Status Syndrome: How Our Position on the Social Gradient Affects Longevity and Health.” 2004
58 www.bowlingalone.com
61 McKnight, John L. “A Twenty-first Century map for Healthy Communities and Families.” Institute for Policy Research, Northwestern University. 1996
64 Action on Smoking and Health, www.no-smoking.org
66 “Beyond ABC: Growing up in Dallas County” 2004 edition
69 McKnight, John L. A Twenty-first Century Map for Healthy Communities and Families. Institute for Policy Research, Northwestern University. 1996
70 Kretmann, McKnight et al. “Building Communities from the Inside Out.” Institute for Policy Research, Northwestern University. 1993