

A REPORT TO MAJOR STAKEHOLDERS ON THE HEALTH STATUS OF DURHAM COUNTY

By

DURHAM HEALTH PARTNERS, INC.

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Purposes of this Report:

The purposes of this report are: a) to present a comprehensive assessment of the current health status of residents of Durham County; b) to demonstrate the utility of a method for measuring health and enhancement of health status of the entire community over time; c) to provide an agenda, based on these findings, for actions targeted at Durham's major health problems including its health disparities that is achievable and cost-effective; and d) to indicate the anticipated role of Durham Health Partners (DHP) in accomplishing these purposes.

Our Approach:

- a) We adopted a 1997 recommendation of the Institute of Medicine of the National Academy of Sciences - that efforts to assess community health should be based upon *a validated conceptual model of determinants of health, which is broadly defined.*
- b) We used a model developed collaboratively by Beth Israel Hospital, the Center for Survey Research at the University of Massachusetts, Dartmouth Medical School, Henry Ford Health System, University of Toronto, Lehigh Valley Hospital, and Parkland Hospital and Health system.
- c) The model we selected is called The Evans & Stoddart Field Model. It includes nine (9) major domains, or determinants of health, which are:
 - 1. Social Environment
 - 2. Physical Environment
 - 3. Genetic Endowment*
 - 4. Health and Function
 - 5. Individual Behaviors/Risks
 - 6. Disease Prevalence
 - 7. Health Care (Resources & Access)
 - 8. Well-Being
 - 9. Prosperity

* *Genetic endowment was dropped from our model because we concluded that this domain, while highly relevant to health, was not assessable by the data collection instruments available to us.*

Data used to characterize Durham County, based upon this model, came from two sources.

- 1) Durham Health Partners and the Durham County Health Department, as part of the 2003 Healthy Carolinians Project, collected secondary data. These data came from surveys conducted between 1999 and 2002 using instruments developed by the US Public Health Service for its Healthy People 2010 Project. The results were reformatted to be consistent with the Evans & Stoddart Model.
 - 2) The Center for Evaluative Clinical Sciences at Dartmouth, and the University of New Hampshire collected primary data for Durham Health Partners. These data were obtained during the summer/fall of 2003 using questions designed specifically for the Evans & Stoddart Model.
- d) The Evans & Stoddart Model had been pilot-tested in Massachusetts, two communities in Pennsylvania, and several counties in New Hampshire. The survey includes approximately 120 questions and was conducted by telephone interviews by a professional staff at the University of New Hampshire, and Dartmouth College.
 - e) For each of the eight domains in the model multiple questions were used in collecting data. Each question was selected on the basis of established validation studies, useful scales, literature searches, and expert opinions.
 - f) An initial telephone survey was conducted between June 30 and August 20, 2003 using a random digit dialing (RDD) procedure. This survey resulted in 528 completed interviews. Of this sample 53% of individuals were white, 35% were African American, and 12% were “other.” These completed interviews were statistically adequate in number to assess overall community health, and the health of certain specific subsets of the population categorized by characteristics such as age, gender, income, and white - African American - or other races/ethnicity.
 - g) We anticipated that the sample subset labeled “other” by race/ethnicity would be predominately Hispanic, and that it would be inadequate in number to provide a statistically valid health assessment of that important and growing subset of our population. To address this potential issue we conducted a second, otherwise identical, random survey of individuals with Hispanic surnames. This latter survey is referred to as the “Hispanic Over-Sample.” It was conducted most often in Spanish and resulted in 208 completed interviews

Findings:

A. The Overall Population

While our primary purpose was to identify domains *where health enhancement is needed and achievable*, this study also provides clear evidence of special assets of those who reside in Durham, and which determine health and resulting favorable measures of health status. The assets listed below are for the community as a whole and do not reflect either positive or negative attributes of any particular subset of the County’s population.

Our Assets include:

- Durham's population is younger than the state's average.
- Median income is higher and the rate of unemployment is lower than both the state and national averages.
- 83% of Durham residents are high school graduates, 40% hold a Bachelors degree, and per-pupil expenditure on education is among the highest in the state.
- 55% of Durham residents report that their health is excellent or good.
- For our county overall, age-adjusted death rates from all major causes except AIDS are below the state average.
- We have more health care providers (in all categories) and more hospital beds (per 100,000 population) than the state average.
- We have Lincoln Community Health Center, a Federally Qualified Health Center.

Significant Areas of Concern:

These favorable aspects of health and/or determinants of health are offset by other indicators that illustrate either poor health, and or behaviors/conditions that could have an adverse effect on future health.

The indicators we have selected to illustrate this aspect of Durham's health are those where our surveys revealed significant and unfavorable measures relative to either the averages for North Carolina (NC), or national data, or both. These indicators have been grouped according to the eight domains of the Evans & Stoddart Field Model. The findings noted below are for the community as a whole.

Social Environment

- 45% of Durham residents do not own their own home.
- 34% are worried about some personal problem.
- Violent and property crime rates are much higher than the state's average.
- Rates of child abuse, neglect, and dependency are 41% in Durham v. 32% for the state.
- 32% rate their neighborhood as unsafe to walk in at night.
- 27% are sometimes worried about being a victim of violent crime.
- 23% have needed help in getting a job within the past year.
- 16% rate their neighborhood as a fair or poor place to live

Physical Environment

- Only 23% of Durham's 1-2 year olds have been screened for lead.
- While actual release of toxic chemicals into the air from within Durham County is in the mid-range for the state, we are second only to Mecklenburg County in risk related to air pollution.

Individual Behaviors/Risks

- 56% of Durham residents are either overweight or obese
- 49% of Durham residents either don't own or haven't tested their household smoke detector.
- 19% of Durham residents keep firearms in their home.
- 18% of Durham residents smoke daily.
- 18% of Durham residents report a family member being treated for substance abuse.
- 17% of Durham residents engage in no leisure time physical activity.
- 12% of Durham residents report abuse of alcohol.

Health Function

- 44% of Durham residents report they have a condition that requires daily prescription medication.
- 28% report that mental health limits their activity
- 20% report that physical health limits their activity.
- 17% report that their overall health is only fair or poor.

Diseases

- Durham's rates for specific communicable diseases, i.e. syphilis, gonorrhea, HIV/AIDS, tuberculosis, and hepatitis A are significantly above the state average.
- Durham's rates for prostate and breast cancer are higher than the state average.

Health Care Access

- 31% of Durham residents do not have an identified health care provider.
- 18% are uninsured.
- 17% report difficult access to health care.
- 4% needed treatment for a substance abuse problem, but couldn't get it.

Well Being

- 42% of Durham residents report being dissatisfied with their lives.

Prosperity

- 28% Durham households have incomes of less than \$25,000 per year, and 13% of individuals live in poverty (based on federal poverty guidelines).

B. Disparities in health among residents of Durham County

According to the July 1, 2002 Census Bureau the estimated total population of Durham County was 234,199. Of this total, 108,934 were designated as white alone, 91,621 were African American alone, and 22,155 were Hispanic or Latino in origin. In addition, 11,489 were classified either as other, or of two or more races/ethnicity. The survey conducted by DHP was adequate in numbers to assess certain disparities in health, for example by gender, income level, educational attainment, and by either white, African American, or “other” races/ethnicity.

As noted in the “Approach” section of this report DHP conducted a second, otherwise identical random sample of individuals with Hispanic surnames. This produced an additional 208 completed telephone interviews referred to in our report as the “Hispanic Over-Sample.” Data derived from this latter sample were then compared to overall data for all individuals from the original telephonic sample. Hence, the Hispanic over sample allowed us to characterize “health disparities” of this subset of Durham residents as well. The relevant domains of the Evans & Stoddart Field Model are again used to group disparities in health.

African-Americans

Many of the demographic characteristics of Durham County’s African American population do not differ significantly from the overall population of the county. This is true, by example, for age and gender. Furthermore, as with the overall population there are important correlations between income level and health status, and between educational attainment and health status. These factors should be considered when the health status of African Americans is compared to either the overall population, or any other subset. Our findings indicate that African Americans also do not differ from the overall population with respect to the percent who lack health insurance, have difficulty accessing the health care system, or the level of satisfaction with the care they receive. However, several important disparities have been identified with respect to health and determinants of health. These include:

Social Environment

- 42% of African Americans own their home v. 55% of Durham residents overall.
- 39% feel unsafe walking in their neighborhood at night v. 32% overall.
- 11% are either always or usually worried about being victims of violent crime v. 9% overall.

Health and Function

- 41% of African Americans rate their health as excellent or very good v. 51% of Durham residents overall.

Individual Behaviors/Risks

- 26% of African Americans smoke cigarettes v. 18% of Durham residents overall.
- 66% are either overweight or obese v. 56% overall.
- 6% report a substance abuse problem in their family in need of treatment they didn't get, v. 4% overall.
- Actually, more African Americans have had a recent blood pressure and cholesterol check than the overall population of Durham.

Disease Prevalence

- Death rates in Durham from heart disease, stroke, breast cancer, diabetes, kidney failure, homicide, and AIDs are greater than among whites.
- Infant mortality in African Americans is 14.7% v. 4.6% among whites.
- Gonorrhea and syphilis rates among African Americans are 2 times the overall rate for Durham County and 4 times the state's rate.

Prosperity

- 19% of African Americans live in poverty v. 13% of the overall Durham population.

Hispanics

The Hispanic population of Durham County does differ significantly from Durham's overall population in certain key demographic variables. As a group, Hispanics are younger, have lower incomes, have achieved lower levels of formal education, and have lived a shorter number of years in Durham. In addition, they differ from the overall population with respect to the following measures of health and/or health determinants:

Social Environment

- Only 13% of Hispanics own their home v. 55% overall.
- 59% are worried about being victims of crime v. 37% overall.
- 55% rate their place of residence as fair to poor v. 12% overall.
- While 63% of Hispanics report that religion is important in their lives, only 32% are members of a church group/organization v. 52% overall.
- Less than 5% of Hispanics are members of civic/community organizations v. 28% overall.

Individual Behaviors/Risks

- Fewer Hispanics (7%) report a need for substance abuse treatment v. 18% overall.
- Only 44% recently tested their smoke detectors v. 61% overall.
- 91% report **not** keeping firearms in their home v. 81% overall.

Health & Function

- 45% of Hispanics rate their health as only fair to poor v. 17% overall.
- 38% are over weight or obese v. 56% overall.
- Only 8% of Hispanics participate in regular moderate physical activity v. 17% overall.
- 14% reported recent binge drinking v. 12% overall.
- 9% of Hispanics reported that health problems had interfered with social activities in the previous 4 weeks v. 5% overall.

Diseases

- Our Hispanic population does **not** experience any specific illness or disease measured in this survey at a higher prevalence than the overall population or the state's average.
- 15% of Hispanics are taking a prescription medication v. 44% overall.

Health Care Access

- 71% of Hispanics have not had a recent cholesterol check v. 36% overall.
- 47% have not had a recent blood pressure check v. 23% overall.
- Only 43% of Hispanics report their doctor spends enough time with them v. 74% overall.
- Only 29% of Hispanics have health insurance v. 83% overall.
- 29% of Hispanics have difficulty with transportation v. 7% overall.
- Language is a significant obstacle for many Hispanics in accessing health care.

Well Being

- 16% of Hispanics report feeling downhearted or blue in the past 4 weeks v. 7% overall.

Prosperity

- More than 65% of Hispanics who have lived in Durham for less than five years have an income of less than \$20,000 per year.

A potential Action Agenda Based on These Observations:

The first group of potential action items suggested below is targeted at disproportionate causes of morbidity (i.e. illness or disease) and/or of premature mortality in the County of Durham. The actions and specific goals have been recommended by Healthy Carolinians, the North Carolina arm of Healthy People 2010.

“Healthy People 2010 are a set of health objectives for the nation to achieve over the first decade of the new century. Healthy People 2010 builds on initiatives pursued over the past two decades. The 1979 Surgeon General's Report *Healthy People*, and *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*, established national health objectives and served as the basis for the development of state and community plans. Healthy People 2010 was developed through a broad consultation process, built on the best scientific knowledge, and designed to measure programs over time.”

The goals of Healthy People 2010 rely on a U.S. Task Force Report, *Guide to Preventive Health Care Services, 3rd Edition*, which provides evidence for both the achievability and cost-effectiveness of numerous interventions focused on prevention. Listed below are specific goals for Durham County, as recommended by Healthy Carolinians:

- Reduce overall cancer death rates by 22% with special emphasis on colorectal, breast, and prostate cancer.
- Reduce age-adjusted death rates from heart disease by 20%.*
- Eliminate syphilis and reduce gonorrhea by 25%.*
- Reduce new cases of HIV/AIDS by 25%.*
- Increase the proportion of those with mental illness & substance abuse who receive treatment by 15%.*
- Reduce teenage pregnancy by 36%.*
- Decrease homicides by 43%.*

A second group of potential action items is targeted at findings within the Evans & Stoddart Model, which measure domains other than disease morbidity or mortality *per se*, i.e. social and behavioral and economic issues that contribute to good health, or its absence, and where Durham has specific opportunities for improvement.

- Increase awareness of major health issues and of effective strategies for prevention and treatment through education
- Improve access to health care for all, especially to screening and specialists.*
- Reduce obesity and the percent of our residents who are physically inactive by 18%.
- Reduce those who smoke every day by 11%.
- Increase the proportion of those who use condoms when sexually active by 20%.

* Indicates areas of special significance for our African-American residents, Hispanics, or both.

- Decrease the percentage of those without health insurance and increase access to safety net providers for those who remain without insurance.*
- Expand the availability of Spanish-speaking health care providers at all points of the healthcare continuum.*
- Reduce the percent of residents who live in poverty and who experience related disparities in health.*

Durham Health Partners Action Plan for 2004-05

Durham Health Partners has reviewed the specific recommendations for Durham County, and carefully considered where we can focus our resources most effectively. The criteria we used to acquire that focus included: the quantitative significance of the issue; the opportunity to reduce existing health disparities among our residents; an effective intervention can be implemented with measurable outcomes in a 3-5 year period; the proposed action is within the Mission of DHP; and cost. Based on these considerations Durham Health Partners will focus its efforts to:

1. Develop and initiate a plan to increase access to specialty care for all people, with special emphasis on the uninsured and other at-risk populations. Access to specialists is an urgent need of existing primary care providers in Durham. By focusing on this need we can simultaneously enhance primary care capacity, improve continuity between that capacity and specialty care, and provide related and beneficial patient education.

Each of the seven causes (noted above) of disproportionately high morbidity and mortality in Durham is important, and each represents an opportunity for measurable improvement in health status. However, all of these causes share in their potential for benefit from optimal primary care/prevention, access to specialists when needed, and continuity of care. Hence, rather than selecting any one condition or behavior, which contributes to Durham's morbidity/mortality, our approach gives equal weight to a limited number of major issues, and to a process that should measurably enhance overall health status of the community.

We will focus on two possible approaches to achieving this enhanced capacity: 1) adapting models that use a central service to refer eligible patients to specialists willing to provide *pro bono* care, or 2) a new practice made up retired physician-specialists. A task force, which includes both university-affiliated and community-level medical practices, under the leadership of DHP, is already working on these options and will select the best model for Durham within a few months.

2. Continue to facilitate community-wide planning for improved substance abuse treatment. We propose to focus our initial effort on continuation of a planning process, led by Durham Health Partners. The plan will be targeted to achieve better access and treatment for those with problems related to substance abuse. Durham Health Partners is uniquely positioned to assist in the further refinement of the plan.

* Indicates areas of special significance for our African-American residents, Hispanics, or both.

Over the longer term, Durham Health Partners can support the County government's accountability process, the efforts of the Triangle United Way, and all other system improvement initiatives, by remaining the single forum where all the stakeholders can come together to address system issues that no one component can address on its own. Specifically, the comprehensive Community Health Assessment, which has guided this Action Plan, should be replicated every 4-5 years, so as to benchmark the progress being made by these and other initiatives and point the way to new ones.