Growing a Healthy Workforce in the Delta

An Analysis of the Health and Wellness of the Delta Workforce

Delta Regional Authority

July 2009

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Section One
Executive Summary

One key to economic development in the Delta Region is assuring that industries investing operations in the area have a productive, healthy workforce. But how do we know that the local workforce is healthy? How do we improve the health if it is, indeed, not good? How do we know that we can compete with other counties, states, and regions based on the availability of capable, fit, energetic individuals that consistently show up for work, produce and create value for the firm and for the region?

These questions were considered by a group of researchers convened in Memphis in September 2008 by Delta Regional Authority leadership. The group consisted of Dr. Teresa Waters of the University of Tennessee Health System, Dr. Eric Baumgartner from the Louisiana Public Health Institute, and Dr. J.M. "Mickey" Trimm from the University of Alabama at Birmingham. Federal Co-Chairman Pete Johnson challenged the group to consider the health and healthcare of the region's workforce. The meeting and subsequent work on this project was coordinated by Bill Triplett, Senior Assistant to the Federal Co-Chairman.

Over the next nine months the group led a team of researchers in conducting investigations into the extent of information on health in the region. The group found that there is incomplete and uncompiled data on the health of the citizens of the region. They also discovered that there are large disparities between the collected health information in the eight states of the region. The group also discovered that there are very successful programs being conducted in communities within the region.

The group undertook a Scope of Work that included gathering data from the region, analyzing existing research on the nature of a healthy workforce, interviewing regional authorities regarding the health of the population and identifying programs that currently address health problems.

The study group assembled an Excel database for all 252 counties in 8 states that combines existing relevant indicators taken from CHSI, US Census, ESRI, and reports written by the Public Health Departments of each state. Additional county-level information needs were identified. Examples of the county reports are included.
The group also developed a comprehensive review of the literature examining the link between specific measures of health and economic development to wellness and health education programs. Using the collected data the group has also proposed a model that suggests relationships between the health of the workforce and other community resources and possible "key economic drivers". This model can be used for future research and exploration into the relationship of health and economic development in communities.

The use of GIS techniques to pin-point "hot spots" was explored. Graphical interpretations of health data offer potential for easily identifying problem areas and communicating the problems to others. Examples are included in this report.

The group identified and compiled county/parish level interventions and effectiveness measures that have been successful at improving some health measures. These approaches can demonstrate to local communities and community groups and businesses how they may produce positive outcomes for improving community health as measured by the health indicators that were collected.

Finally, the group provided recommendations for continued efforts by the Delta Regional Authority to improve information, consolidate health improvement efforts and to provide resources for community efforts to develop the health of their workforce and citizens.

The development of the recommendations was finalized at a meeting with the DRA Health Advisory Committee on July 14, 2009 in Memphis. The recommendations were presented and approved by the Delta Regional Authority Board of Directors at its meeting in Gatlinburg, Tennessee in August, 2009.

The recommendations were:

1. that the Delta Regional Authority institute a grant program, similar to its Federal Grants Program, to fund health initiatives throughout the region. These grants would be administered and reviewed in a similar fashion to the Federal Grants Program with the similar expectation of proven outcomes.

2. DRA should compile and produce County Data Reports on its web site for universal access to the information. Ongoing updates will be required as well as continual efforts to improve the quality of the data.

3. Additional follow up work beyond the scope of the original study has emerged during the course of the investigation. The following activities will be beneficial in furthering current efforts and provide DRA with better long-term health for the communities.

a. DRA should take the lead in coordinating a meeting of state organizations that currently produce health data with the purpose of improving, standardizing, and improving the quality of the data available. DRA should work with these groups to identify additional information that is currently not being captured but that could be of extreme value in assessing the health and wellness of its workforce and other populations.

b. DRA needs to set up a mechanism to collect and disseminate the Tool Kit programs, best practices and benchmarks using its web site.

c. DRA should use its reputation as a successful convener of disparate groups to pull together rural health organizations for the purpose of establishing stronger links and mutual goals and objectives while reducing duplication and fragmentation in local efforts.

d. DRA should convene operatives from federal and other governmental programs such as HRSA, USDA, and state health planning agencies to strengthen funding support and assure that local groups and organizations are connected to all

resources available. DRA can provide information from these funding sources on its web site.

e. Technical assistance for establishing and operating health programs should be established through a partnership with the HRSA Office of Rural Health Policy, the USDA agricultural agents, or other programs.

f. The Delta Regional Authority Leadership Institute should incorporate mechanisms to help communities and their leaders undertake the projects and activities identified in the Tool Kit. This should include education into the availability and use of information that will be made available on the DRA web site and other resources that are available for health and wellness promotion.

g. As part of the effort to establish health information on the DRA web site the DRA should establish a "Wikipedia-type system" for allowing citizens to contribute information regarding health programs and other information that could be valuable in the region. We further recommend that social networking systems be used for sharing health and wellness related information.

h. DRA should organize regional and sub-regional healthy workforce discussion groups leading to sustainable coalitions of networked stakeholders to encourage local organizations, businesses, faith-based groups, and others to share experiences in past activities and ideas for future implementations.

i. The Health Advisory Committee charter should be extended and that the Committee should be charged with determining the resources necessary to fulfill these recommendations and overseeing the activities that need to further health and wellness activities in the region.

j. Finally, based on the experience with this project, we recommend that the Health Advisory Committee use in-Delta resources when seeking the resources to undertake these activities. We strongly recommend that the resources of the many educational institutions within the Delta be considered when marshalling these resources.

Section Two
Introduction / Background

2.1 INTRODUCTION

Recognizing that the health plays a critical role in the well-being and productivity of the region, the DRA leadership has sought to better understand what the agency can do to have a real impact on health in the Delta. The DRA has a long and successful history of bringing together various agencies and local groups for the betterment of the Delta Region. This leadership role as facilitator, coordinator and relationship-builder has proven invaluable to the region and represents a unique and critical asset. For this reason, we believe that focusing on activities that build on the DRA's strengths will ensure the success of their activities in the health arena.

Consistent with DRA's current success in the arena of economic development, we propose the following guiding principles for efforts in the health arena:

1. **Empowerment** – sustainability requires that local leadership be empowered to own their health issues and the local solutions.
2. **Local Determination/Local Effort** – similarly, local solutions should be driven by grassroots efforts so that programs are tailored to the unique needs of each area and local leadership is invested in the process and outcomes.
3. **Accountability** – All investments require accountability to ensure efficient and appropriate use of resources. The current Federal Grant Program requires that local agencies sign a contract to deliver promised outcomes or forfeit grant monies. A similar approach should be used with the health program to ensure realistic goals and responsible management of funds.
4. **Coordination/Alignment** – Building on their strengths as coordinator, facilitator and relationship-builder, the DRA should emphasize activities that
   - leverage other federal, state, and local funding,
   - bring together various agencies and groups with similar interests or responsibilities,

- compile and organize information on health needs, best practices, and available funding so that it is easily accessible for local leadership in the Delta, and
- work to eliminate fragmentation and duplication of federal, state and local efforts.

5. **Monitoring and Updating** – to ensure maximum relevance and impact, the DRA must continuously monitor and update the information they make available and their communication and coordination methods.

2.2 BACKGROUND FOR THE CURRENT PROJECT

In September, 2008, the Delta Regional Authority initiated discussions with members of the academic healthcare community in the Delta region for the purpose of addressing the question, "What can the DRA do to address the health of the region?" The consensus of that meeting was that a study was needed to lay the groundwork for future initiatives and to provide information that would allow community leaders to assess specific health issues in their local communities. In addition, a "toolkit" was proposed; this set of best practices case studies would provide practical information on programs and activities that have been documented as effective in improving workforce health in the Delta and across the U.S.

The need to address the health of the region is clearly outlined in the DRA Strategic Plan:

> The relationship between health and economic development goes beyond the fact that healthy people live longer and are therefore able to be more productive members of society longer. They also show up regularly for work and they cost their employers less in health care. Their productivity is higher.

The strategies identified in this plan include an effort to "work with employers and other regional partners to develop innovative worksite, retail-site, and school-based programs designed to prevent and reduce the incidence of chronic diseases within the workforce, including such conditions as diabetes, obesity, and heart disease."

Currently there is incomplete and uncompiled data on the health of citizens in the Delta region. Also, the understanding of a healthy workforce is basic and has not been explored to the extent of health for the elderly and children. Projects and programs that address the health issues exist but have not been documented. In order for communities in the Delta region to pursue industry and jobs, they must be able to measure and improve the health of their workforce and demonstrate their ability to provide healthy human resources to potential employers.

The initial project completed by the study team sought to document the health and health improvement activities of the region, focusing on existing data sources (Information Gathering), conduct limited analyses of the data in order to identify critical need areas and benchmark geographic areas (Analysis), and provide initial recommendations for DRA efforts in the health arena (Recommendations). In the rest of this chapter, we provide information on the scope of work covered by this project (2.3), the study team and approach (2.4) and characteristics of the region addressed by the project (2.5). Chapter 3 outlines the concept of a "healthy workforce", what factors affect the health of the workforce and what "avenues" are likely to provide opportunities for intervention and health improvement. Chapter 4 focuses on the practical task of measuring health and a healthy workforce and measuring the factors that may be driving these important outcomes. Chapter 5 contains a discussion of the initial "toolkit" prepared by the study team. We see the development and updating of this toolkit as an ongoing effort that will evolve and improve as grassroots organizations are encouraged to share their experiences. Chapter 6 contains a summary of the project findings and recommendations for future DRA efforts in the health arena. Finally, we have attached a number of appendices to this report that provide additional detail on various aspects of the project.

2.3 SCOPE OF WORK

The elements of this study will include information gathering, benchmarking and literature reviews and the formulation of the acquired information into a knowledge base that can guide the Delta communities in future efforts to improve its workforce.

1. Information Gathering

a. Assemble a database for all 252 counties in 8 states that will combine relevant indicators taken from CHSI, US Census, ESRI, and reports written by the Public Health Departments of each state.

To the extent possible, this data collection activity will focus especially on health conditions that affect workplace productivity, absenteeism, and worker disability. Additional county level information could cover: educational attainment (high school, 2 and 4 year college completion), demographics (household income, median home values, uninsured, unemployment, location of hospitals and physicians, etc).

All of the data compiled in this database will be drawn from existing resources. There is a great deal of relevant data that is already collected by various agencies and organizations, so it is very important to not "recreate the wheel". We will identify and compile the information that exists, preparing a concise summary report (including relevant tables and graphs) with preliminary recommendations for follow-up phases. At the same time, this process will allow us to identify gaps in knowledge, many of which may require specific local data collection and interviews.

b. Comprehensive review of the literature examining the link between specific measures of health and economic development to health/wellness and health education programs. We plan to cast a "wide net" for this review, examining programs at the national, regional, state, community and employer level.

c. Interviews of Key Informants in the Delta Region to gather information on programs and interventions not discussed in the literature.

2. Analysis

a. Preliminary analysis of available county level data to identify possible drivers of healthy workforce growth. For example, we plan to investigate the relative importance of specific health problems, specific health promotion programs, population demographics, education level and test scores, and presence of specific types of employers on measures of local productivity (e.g. gross product measures, per capita income, full-time/part-time employment rates). Given the limited time for this analysis, development of outcomes indicators may be a phase II project. The use of GIS techniques to pin-point geographic "hot spots" will be explored.

b. Analysis of key informant interviews to identify successful programs, focusing especially on core elements and processes associated with positive outcomes.

c. Compare possible "key economic drivers" identified through our preliminary analysis across counties, regions, states, and United States as a whole.

d. Suggest benchmarks for future intervention effectiveness measurement. Emphasis will be on measurement of processes rather than outcomes.

3. Deliverables:

a. County/parish level economic indicator database for placement on www.dra.gov. All tables will be presented in Excel formats that can readily be sorted to answer the specific questions of users.

b. Develop county and regional profiles. This database will be focused on maintaining and improving a healthy workforce.

c. Literature review of existing healthy workforce initiatives and programs that could be valuable in promoting a healthy workforce in the Delta region.

d. Develop prototype visual presentations to illustrate relative benchmark performance.

e. Identify the components of a 'tool kit' of county/parish level interventions and effectiveness measures.

f. Suggest approaches that demonstrate to local communities and businesses how they produce future productivity and workforce growth benefits.

g. Case study examples of effectiveness, e.g., Alabama Sight Savers, telemedicine UTHSC.

h. Suggest work content for on-going phases including community involvement (RFP or other measures as required based on the evidence from our studies).

i. A white paper will be developed from the research, literature review, case studies, a gap analysis, and other materials that will provide DRA with recommendations and information that will be readily useable at the conclusion of this project. This paper will suggest work content for on-going Healthy Workforce phases and will recommend and support future funding for any initiatives.

4. Time Frame

Original time frames for this research included commencing in January and completing the study in May. The grant proposal was submitted to DRA in early January but final approvals were not completed until March. The contracts for the work were signed by

the Alabama Department of Economic and Community Affairs on April 18, 2009. As a result, the final completion dates were pushed back until July 31, 2009.

2.4 STUDY TEAM & APPROACH

The Delta Regional Authority convened a meeting in September, 2008 to discuss the issues of health and healthcare in the Delta region. At the suggestion of members of the Health Advisory Committee, Drs. J.M. Trimm, Teresa Waters, and Eric Baumgartner met with Mr. Bill Triplett and Pete Johnson, Federal Co-Chairman of the DRA. Following this meeting the attendees were asked to form a team and submit a proposal for undertaking a study of the health issues in the Delta region.

A scope of work was prepared and presented, and once the Health Advisory Committee had approved, a grant was written and submitted by the Alabama Department of Economic and Community Affairs (ADECA) to DRA. This grant was awarded on March 2, 2009. Once the grant was awarded, a contract was submitted from the team members, through the University of Alabama at Birmingham, to undertake the study. The contract between ADECA and UAB was finalized on April 18, 2000. Individual contracts were subsequently issued for each team member's institution or for individual contracts by UAB.

2.5 THE DRA REGION

The Delta Regional Authority (DRA) geographic area covers 138,000 square miles and has a population of 9.6 million persons who live in 230 counties in seven states bordering the Mississippi River and 22 counties in Alabama's Black Belt. There are four states with major population centers and four without – a big contrast. Thirty-six percent of the total Delta population lives in 13 counties (5%) with greater than 100,000 residents and a higher percentage work in those counties. Nine percent of the population lives in the 86 (35%) smallest counties (<15,000 residents), and 3% live in 38 counties with fewer than 10,000 residents.

Recognizing this range of county sizes is very important: it is likely that residents and corporations in the 13 largest counties (with perhaps half the DRA working population when we consider county border crossers) will be more aware of 'wellness' than the 86 counties with populations <15,000. Within Memphis, New Orleans, Baton Rouge, Little Rock, and Jackson, for example, there will already be community groups (churches, schools, and health centers for example) with wellness promotion programs; the large hospitals and clinics will offer more, and large metro employers will be more aware of wellness (and capable of organizing internal programs) than the smaller counties.

Maps will show the significantly different racial, income, poverty, education, and education mix in the region.

All the major hospitals and outpatient clinics are in the metro counties. Small communities may be unlikely to be sites for new business development UNLESS an interstate highway passes through AND they are situated between two towns and have attractive land and construction costs. Large metropolitan areas are not homogeneous in themselves (e.g., the large wealth and health inequality gap between Germantown vs. West End for example within the Memphis area) and they require different approaches.

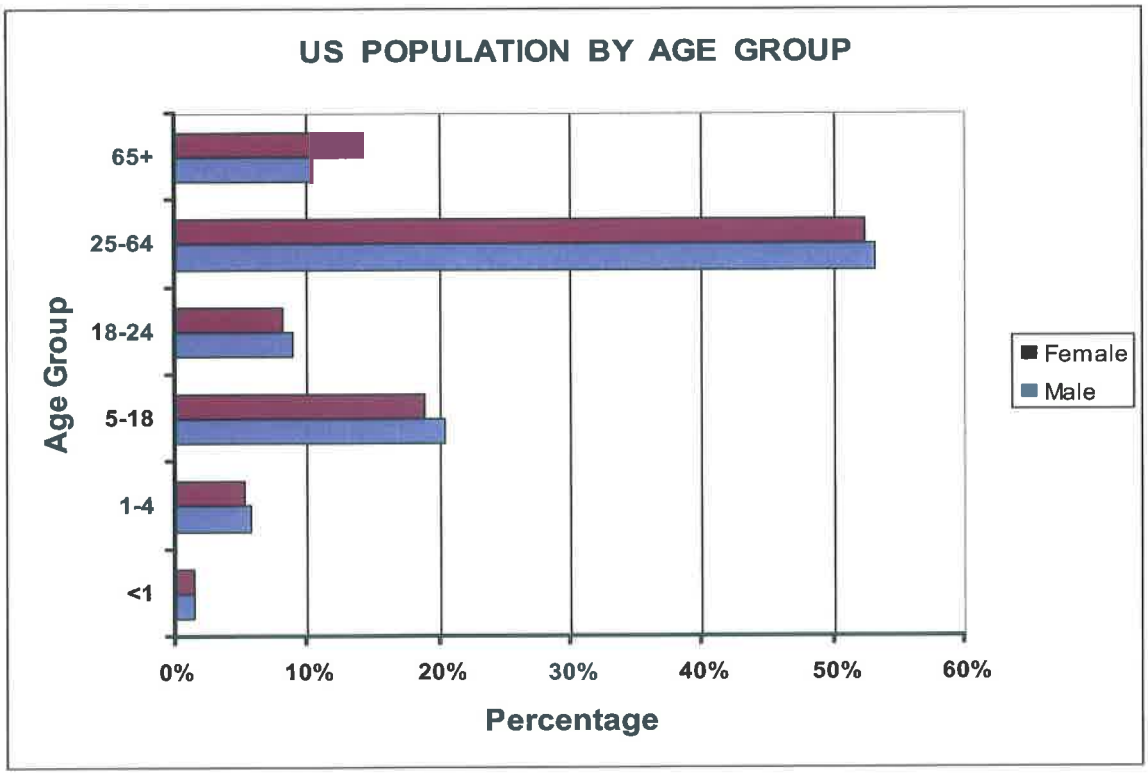
In Summary

The DRA region is not geographically or demographically homogeneous.

- Ill-health has complex and interactive causality.
- Workplace health is inseparable from community health but there are causes of ill-health that largely originate in one or the other.
- Workplace risks vary and are closely linked to the type of employment: e.g., heavy industry vs. construction vs. light manufacturing vs. teaching or healthcare, vs. desk-bound. Health problems and promotional approaches differ by employee age and gender.
- In some counties a significant proportion of employees work outside the county of their residence (the last map). A significant proportion of in-county workers are local or state government employees where health promotion programs may need central approval.

- Ideally, community and workplace health promotion activities should be complementary.
- DRA wishes to attract more jobs partly by bringing in existing corporations, but primarily by fostering entrepreneurialism, and by strengthening existing DRA area companies to make them more efficient and profitable. The average company is a small business and company size will influence the type of wellness program undertaken.

POPULATION AGE DISTRIBUTION



Section Three
Concept of a Healthy Workforce

3.1 DETERMINANTS OF HEALTH

This area will discuss the Biological, social, psychological, behavioral, and political determinants of good- and ill-health. Employee health is impacted by complex interactions among a wide range of factors within the environments in which workers live, play, are educated, and work. Chickens and eggs. Disparities. Health insurance and care access. IOM concerns. HP 2010 goals and NWHPS 2004 progress assessment.

3.2 THE CONCEPT OF A HEALTHY COMMUNITY

When conceptualizing a healthy community it is appropriate to consider where we can have the most impact. Communities tend to congregate and those places where people meet and socialize and work are the most convenient and appropriate places to address the community's health.

INTERVENTION LOCATION PRIORITIES:

#1 THE WORKPLACE: 53% RESIDENTS, 5 DAYS PER WEEK.

#2 SCHOOLS: 19% OF RESIDENTS, 5 DAYS PER WEEK.

We know what to do and how to do it. We just have to decide the most effective manner to address the issues.

Think place.

Where does risky behavior occur?

Where do we promote good health?

Where do we detect ill-health early?

Where do we manage ill-health?

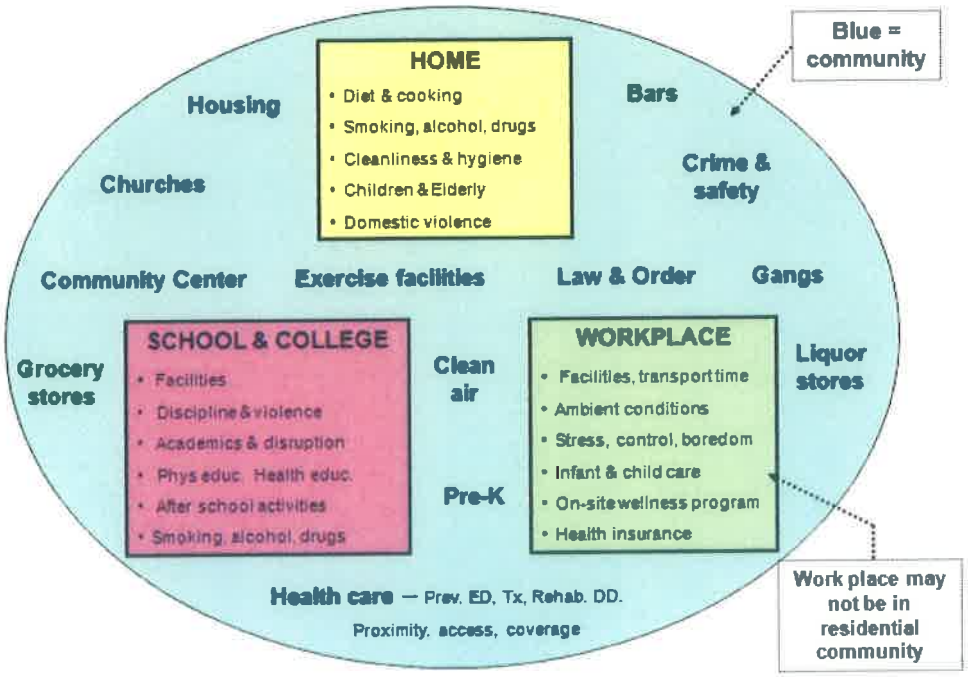
PRIORITY LOCATIONS

Corporations: Industry types range from agriculture to construction to manufacturing to banking to transportation to retail and the different health promotion challenges of each must be recognized. Company size influences implement-ation possibilities.

Government: In some counties, government will be a major employer (administration, social services agencies, fire, police, teachers, maintenance). Special program challenges.

Schools: Relatively easy to organize health screening. Often backed by federal or state regulations.

Religious Locations: Churches, synagogues, mosques, and other faith-based locations are an ideal place for observing individuals' health and intervening. Parish nursing programs can be very effective and are relatively easy to administer.

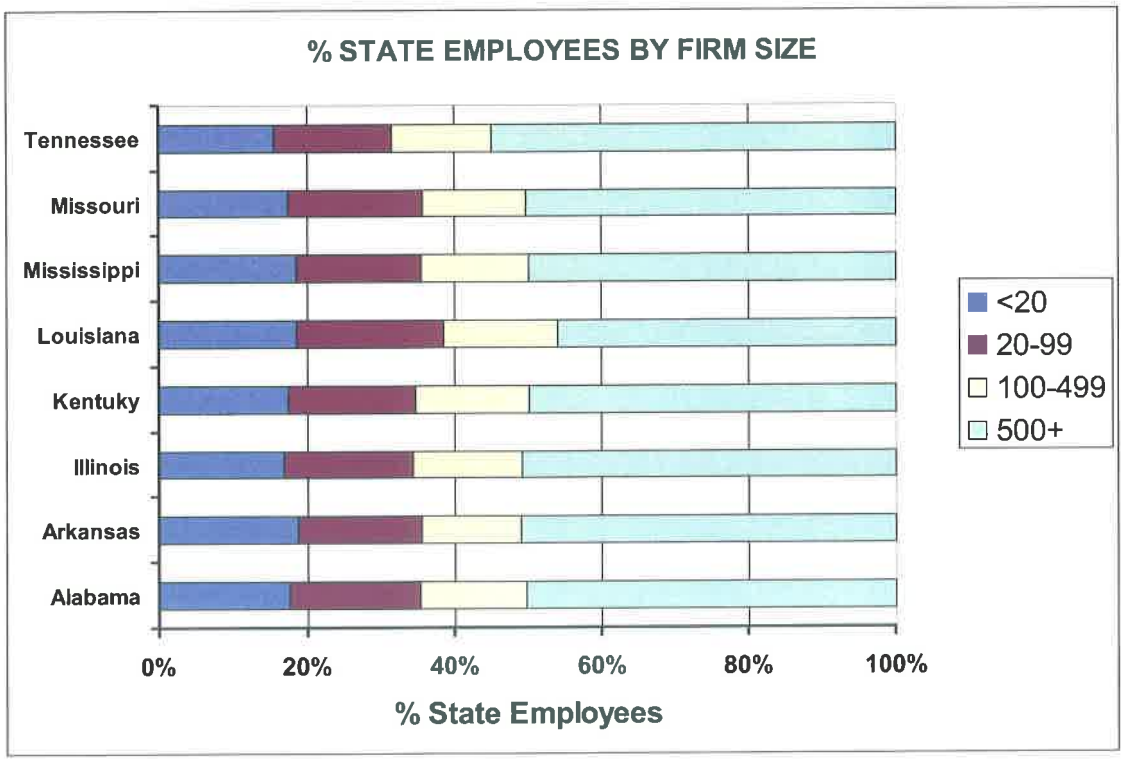


3.3 THE WORKPLACE AND THE COMMUNITY

We need to consider

- 50% of workforce in companies in the DRA region have more than 500 employees
- 15% work in 100-499 employee companies
- Most will already be aware of the need.
- Some will have programs. Act as peer advisors.
- Residents of some counties work outside their home counties.
- Programs need customization for industry group, size, employee age profile, urban/rural companies.
- Can implement in stages. Screening inexpensive.

CONSISTENCY OF EMPLOYER SIZE



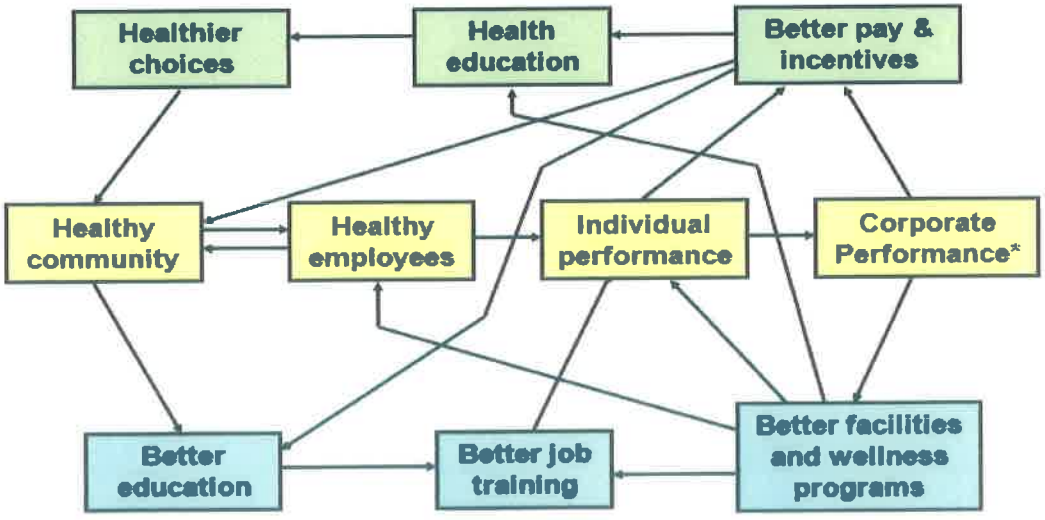
LIVING AND WORK ENVIRONMENTS

THE WORKPLACE

Key points:

1. Good employee health is in the economic best interests of the employer
2. Workplace centered health promotional programs are cost effective
3. Counties are so heterogeneous that aggregate data have little value. Highly relevant data are already collected and are in the claims records of corporations.
4. 50+ % of residents work.
5. Programs increase productivity, reduce absenteeism and presenteeism, cut direct and indirect cost of care, workers comp, and disability
6. Some control (within ADA & EEOC regulations). Peer support.
7. Payroll is ideal mechanism for financial incentives and penal-ties. Premiums, copays, team competition.
8. Effectiveness measurement with existing in-house data
9. Ideal location for HRA and WLQ assessment

MUTUAL BENEFITS OF WORKPLACE HEALTH PROMOTION



* Corporate performance is improved by increased output, reduced healthcare costs, WC, STD, & LTD, individual and team performance, reduced employee turnover and retraining expense, improved corporate morale and reduced absenteeism and presenteeism.

SELLING HEALTH PROMOTION IN THE WORKPLACE

The return on investment is proven:

- Reduced direct and indirect healthcare costs
  - Improved worksite safety – health and liability
  - Healthy behavior modification – smoking, alcohol, drugs, gambling, unsafe sex. Diet & exercise.
- Reduced workers comp, STD, and LTD claims
- Improved productivity from:
  - Reduced absenteeism
  - Reduced presenteeism – stress and management
  - Improved morale and teamwork. Recruiting.

Important Issues for Start-Up

- Top level support. Employee support.
- Employer and employee willingness to change.
- Need coordinator position with FT or PT responsibility.
- Internal analysis and goal targeting and benchmarks.
- Claims and absentee data support targeting.
- Well defined program implementation stages. Budget.
- Infrastructure: space, timetable, supplies defined.
- Measurement. Initially more of processes than outcomes.

Keys to Implementation

- Inter-company cooperation and shared experiences
- Build community culture of health
- DRA central assistance with:
  - Claims analysis advice (HIPAA compliant)
  - Absentee analysis
  - HRA and WLQ
  - Internal database (share program not data)
- Collaboration with providers and insurers
- Policies: e.g., smoking, alcohol, drugs.

WORKPLACE INTERVENTIONS

PREVENTION EDUCATION:

- Smoking
- Alcohol
- Drugs
- Risky sex
- Diet/exercise
- Stress

SCREENING (menu approach next slide)

- BMI. BP. Lipids. Glucose
- Flu & pneumococcal shots (short-term)

- Cancer (breast, cervix, colon, prostate)

WORKPLACE INJURY (particularly back)

EAP Program (formal in larger companies)

3.4 SCHOOLS AS A SITE FOR ADDRESSING HEALTH

Schools provide the foundation for understanding one's health. School years are also the time for the development of formative habits that will affect the individual as they grow into workforce age. Addressing health early assures the student is able to acquire knowledge and also assures that problems are addressed that might cause problems in the work place later in life.

Typically school programs address on of the following interventions.

- Eye-sight and hearing.
- On-site medical and dental exams.
- Psychological support.
- School lunches, snacks and soft drinks
- Exercises. PE. Sports.

3.5 GOVERNMENT AS A SITE FOR ADDRESSING HEALTH

Governments are often the largest employers in communities. Police, firemen, and school officials provide basic services in almost every community. Programs that address these elements of the workforce can be very similar to those of other industries but should also focus on the specific health elements related to the job. For instance, stress management programs may need to be a priority for police and security personnel.

Government agencies may also, in an effort to encourage economic development, partner with industries, schools and other organizations to address health in the community.

3.6 COMMUNITY BASED PROGRAMS

In addition to governmental agencies, communities often contain specific community programs that have been organized by local citizens in grassroots efforts to address the specific needs of an area. Included in this area would be any churches and religious groups. These organizations may focus on specific health issues or on particular populations, such as a congregation, the homeless or indigent. Often the needs of these groups include information regarding the health status of the community and the specific health measures for the specific issues they desire to address.

3.7 DEVELOPMENT OF A NEW MODEL

While various parties have addressed health and healthcare in many settings in the past we felt it was important to review the literature and determine if there could be an inclusive approach to examining workforce health in a way that would allow any interested organization, whether an employer, community group, or governmental agency to examine the elements of health and address specific components pertinent to that particular community or group.

Simply put, our approach has been to ask two basic questions:

1. What is the health status of a DRA county or community?
2. What are some solutions that might work in addressing the problems identified by the measures and metrics that are available?

Section Four
Health Measures

4.1 Literature Review Summary

More than 1000 scholarly articles have addressed various aspects of the impact of health on a work force's productivity. The unity of the conclusions from the empirical analyses is particularly impressive. Without question, health has an impact on work force productivity. The linkage between community health and the economic productivity and financial well being of the community is well established. In addition, the literature leaves no doubt that community and company health improvement programs have a positive impact on work force productivity and community economic well being. While we are certain that investments in health provide positive returns to companies and communities as a result of the increased productivity, we can only estimate the value of the economic returns on these investments.

Impacts on work force productivity are generally evaluated in terms of absenteeism and presenteeism. Costs associated with work force health in addition to the cost of diminished productivity include workers' compensation claims (Xerox Corp. , Musich, et al (2001)), and direct health costs (for self-insured employers) or health insurance costs. The literature summaries of ***EDINGTON & SCHULTZ (2008) "The total value of health: a review of literature," and*** **Schultz & Edington (2007) "Employee Health & Presenteeism: A Systematic Review"**, identified and summarized more than 150 studies concerning health risk factors affecting productivity.

Analyzing these summaries revealed that the following five health risk factors have been demonstrated to negatively affect productivity and can generally can be assessed for a community as a whole: (1) high or low BMI (obesity); (2) smoking; (3) depression or other mental health issues; (4) arthritis; and, (5) high blood pressure. Alcohol and drug abuse are also serious employer and community concerns although the number of studies citing these factors were not as large as for the other five. Presumably, the linkage from alcohol and drug abuse to diminished productivity is so self-evident that the impact on

productivity from the negative health effects resulting from these behaviors has not been published as extensively.

As was demonstrated by the landmark "Steelcase Corp." study (Yen, et al, 1991) reducing an employee body's health risk by reducing the number of risk factors can dramatically reduce a company's total health care costs. Other significant studies supporting this conclusion include Burton, et al (1999) Boles, et al (2004), Serxner et al (2001) to name a few. The Boles study indicated that presenteeism was a larger problem than absenteeism. Principle studies demonstrating linkages between the five named health risk factors and productivity include: Burton, et al (1998) and Narbro et al (1996) - high or low BMI (obesity); Bertera (1991) and Burton et al (2005) - smoking; Goetzel et al (1998) - depression or other mental health issues; Goetzel (2004) and Burton (2006) - arthritis; and, Bertera (1991) - high blood pressure.

That these health risk factors can be assessed for a community as whole is significant to the Delta Regional Project. If factors can be assessed at a community level, then a community can act to improve the health of its people through programs focused on these five risk factors and other health issues. Health promotion programs have been demonstrated to be effective in improving employee health by Golaszewski (2001), and Aldana (2001). By improving its work force health, the community becomes more attractive to businesses as a potential place to locate. Gaining such a reputation, in turn, results in economic improvements for that community.

The research to date supports the model for a healthy workforce that this team has developed and is presented in this paper at Section 4.2. While the model was developed based on personal observation, past research, and direct involvement with the development of healthy workforces, the literature provides substantial support for the elements included in the model.

The most extensive review of the association between health and workforce was chronicled in the work of John Strauss and Duncan Thomas. This research investigates

the use of the efficiency wage concept to show that health promotes higher income and therefore greater economic benefit for the community.

Strauss, J. and Thomas, D. (1998) Health, Nutrition, and Economic Development. Journal of Economic Literature, Vol. 36, 737-782.

Thomas, D. and Frankenberg, E. (2002) Health, Nutrition, and Economic Prosperity. Bulletin of the World Health Organization, Vol. 80, 106-113.

Community infrastructure – Potter, M.A., Barron, G. and Cioffi, J.P. (2003). A model for public health workforce development using the National Public Health Performance Standards Program. Journal of Public Health Management and Practice, Volume 9 – Issue 3: 199-207.
Rodney, M., Clasen, C., Goldman, G., Markert, R., and Deane, D. (1998). Three evaluation methods of a community health advocate program. Journal of Community Health, Vol. 23, Issue 5, pp. 371-381.

Health promotion programs – Ryan, M., Chapman, L.S. and Rink, M.J. (2008). Planning worksite health promotion programs: models, methods and design implications. JOEM, July/August, 1-12.

ACSM's Worksite Health Handbook-A Guide to Building Healthy and Productive Companies
Barker, F.H. (1987). In pursuit of a healthier work force. The Journal of Business Strategy. Vol. 8, Issue 2; pp. 17-21.

Goetzel, R.Z., Ozminkowski, R.J., Bowen, J. and Tabrizi, M.J. (2008). Employer integration of health promotion and health protection programs. International Journal of Workplace Health Management. 1(2):109

Access to healthy food and exercise – Aronson, R.E., Norton, B.L., Kegler, M.C. (2007). Achieving a "Broad View of Health": Findings from the California healthy cities and communities evaluation. Health Education and Behavior. Vol.34, Issue 3, pp 441.

Individual and family characteristics – Sorensen, L.E., Pekkonen, M.M., Mannikko, K.H., and Louhevaara, V.A. (2008). Associations between work abiity, health-related quality of life, physical activity and fitness among middle-aged men. Applied Ergonomics. Vol. 39, Issue 6, p 786

Each of these elements contributes to the health of a community and to the community providing a healthy work force to existing and potential employers. Increasing the health of the workforce increases their productivity which, in turn contributes to an increase in income and wealth in the community. As illustrated in the model, the increase in the

community's wealth allows the community to improve each element that contributes to a healthy workforce that is more productive and in turn more wealthy, and on and on in an iterative process. The bibliography of papers referred to is this report along with additional articles that may be of interest to others seeking deeper insight into these issues is attached at APPENDIX B.

The next question then becomes how to implement these improvements. A multitude of resources are available to assist communities to develop effective health promotion programs. A few of these resources and their web sites are listed below:

The Centers for Disease Control (CDC) - http://www.cdc.gov
Centers for Public Health Awareness
National Public Health Performance Standards Program (NPHPSP)
Environmental Health Services Branch (EHSB)

The Rural Health Research Project – http://www.ruralhealthresearch.org

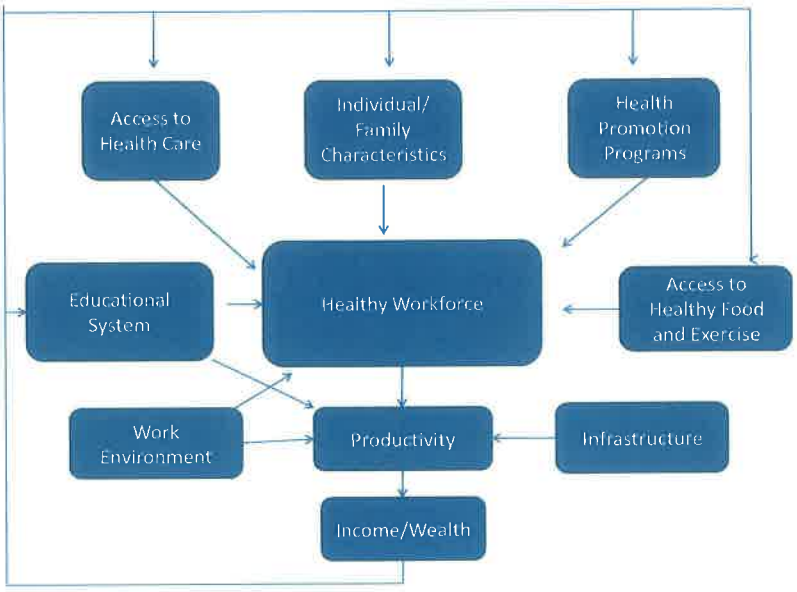
The Rural Policy Research Institute (RUPRI) – http://www.rupri.org

U.S. Department of Health and Human Services

Implementation programs that can be adopted by communities and employers that are recommended by this task force are provided in the 'Tool Kit' section of this report.

4.2 A Proposed Model

Based on the literature review and our investigations and knowledge of health status issues we suggest the following as a format for addressing the issues related to Workforce Health in the Delta. This model expands on the work of Strauss and Thomas, showing a cyclical relationship where health within the workforce creates income from productive work, which in turn allows the workforce to purchase better nutrition, increase recreation, improve education, and have other community benefits that, in turn, create more healthy workers, and, hence, more productivity.



4.3 Development of Data Base

Based on the proposed model for development of a health workforce as outlined in Section 4.2, we reviewed existing, publicly available databases for measures of a healthy workforce and the factors related to its development. Because of the large area covered by the DRA region and the availability of data, we focused on measures that were available at the county level. In order to ensure relatively uniform data collection methods, we selected databases that were national in scope. State-level databases too often differed in the formulation of questions and data collection methods, making cross-state comparisons difficult.

We sought to obtain measures for each of the conceptual areas outlined in Section 4.2. In many cases, multiple measures were available and appropriate. For example, for the data area "Educational System", we constructed three measures of educational attainment for each county from Census data (% of persons 25+ with less than 9 years of school, % of persons 25+ with a high school degree, % of persons 25+ with 4+ years of college), one measure of literacy from a US Department of Education Survey (% of persons 16+ lacking basic prose literacy skills), and four measures of the educational system in the

county, also available from the US Department of Education (number of school districts, number of schools, students as a % of the < 18 population, and student-teacher ratio).

In order to capture the range of factors presented in our proposed model, a number of large databases were tapped for construction of the database. One major source of data was the Area Resource File (ARF) produced by the Bureau of Health Professions (HRSA). This database contains county-level health and health care measures constructed from a wide range of databases, including the Census, the AMA's Physician Master file, other professional society data, AHA data, and data from federal departments and agencies. The advantage of this database is that it is updated every 6 months and contains data that is already at the county level. Health and health behaviors data was drawn primarily from the Behavioral Risk Factor Surveillance System (BRFSS) databases available on CDC's Community Health Indicators website (gis.cdc.gov/chsi). Data on the presence and size of various types of business in the county were drawn from County Business Pattern data available from the US Census Bureau. Finally, data on violent and property crime as well as the number of law enforcement personnel in a particular county were drawn from the "FBI Crime in the US" database available on the FBI website.

The current database contains data for all the counties in the 8-state DRA region, including both DRA counties and non-DRA counties. This approach will facilitate comparison of DRA and non-DRA counties within individual states and across the region. It would be possible to expand this database to include county-level data on the rest of the US, if desirable.

Not all data from the established sources are complete or completely accurate. We found issues that fall into four categories.

1. We have the data, but we worry about the quality and comprehensiveness of data. For example, the Crime and Law enforcement personnel data from the FBI.
2. We have the data, but there are significant holes for low-population counties – CHSI data elements.
3. We don't have the data, but it is possible/likely that they exist somewhere:
    a. Workplace injuries, workers comp claims/payments,
    b. Medicare, Medicaid, commercial enrollment numbers,
    c. HMO, PPO Penetration,

   d. Average Area Per Capita Costs (AAPCC) for Medicare FFS enrollees (a measure of cost),
   e. Presence/volume of and/or access to T1 lines/Internet,
   f. Infrastructure data: roads, railways, waterways, air, and
   g. Employment and wage data: average weekly wage, changes in employment.
4. We don't have the data and we don't believe it is currently collected across the region:
   a. Presence/size of health promotion programs (employer-based, insurance-co-based, provider-based),
   b. Presence of telemedicine programs (we have DRA-counties only),
   c. Program or population measures of prevention education, and
   d. Population measures of absenteeism, presenteeism, productivity.

The data base information that has been compiled for each of the counties should be posted on the DRA web site. This information needs to be presented in user-friendly formats that cater to all levels of computer literacy. In addition, these data need to be updated regularly to ensure their relevance and applicability. Making this information readily available will allow community organizations and others to have vital information when preparing funding requests and for benchmarking the health of their community.

Each state collects its own set of health data. We have compiled reports that include information that is common to all counties in the region but an effort to help the states and other research institutions coordinate and standardize the data that they collect would be of value. DRA could take the lead in this coordination effort.

Our entire data base does not lend itself to presentation as it is formatted on a large Microsoft Excel spreadsheet and in a format for use with statistical packages such as SPSS and SAS. Posting this very large data base to the DRA web site seems the most appropriate way to disseminate the information. Until that occurs, we will make this data available to any who request it.

4.4 Geographic Interpretations of Health Status Data

The old saying "A picture is worth a thousand words" applies to health and wellness too. So we have attempted to demonstrate how visual geographic interpretations of the data

collected might better explain and project health status in the Delta counties. We have developed prototype visual presentations to illustrate relative metrics for the Delta counties.

Our initial illustrations are for basic demographic information. The maps clearly show that the major poverty areas are the counties closest to the Mississippi River in both Louisiana and Mississippi with additional pockets in the Black Belt pockets of Alabama The maps also visually demonstrate that these same poverty areas contain the counties with the lowest high school graduation rates, the lowest income levels, and the highest levels of population loss.

Additional charts illustrating the obesity of the area and other health issues are being developed.

Section Five

Tool Kit

5.1 The Search for Programs

To address the second basic question of the research, i.e., what programs and projects can help the citizens of the Delta address the problems with health and wellness that are identified, we engaged members of the Delta community with queries regarding existing programs. Members of the Health Advisory Committee provided contact information for those engaged in existing activities.

A standard questionnaire was developed to explore existing programs. The programs that we solicited had to be existing programs with identifiable outcomes. We solicited information on the program sponsor, the scope and costs related to the program. We examined the benefits derived and the outcomes from existing programs.

5.2 Took Kit for Addressing Health Issues

Solicitation of programs is ongoing and we expect that, as the compiled list is published, other programs will come to light and will need to be added to the Kit. A key follow up to our study should be the development of a mechanism for continuing to compile and promote these programs, most likely through the DRA web site. Other valuable information such as benchmarks and best practices should also be part of the compilation.

Currently compiled programs are provided in the Appendices of this report.

5.3 Encouraging Health Initiatives in the Delta

As a way of encouraging positive activities, the Delta Regional Authority should consider initiating a grant program, similar to the Federal Grants Program, to fund Tool Kit type programs throughout the region. Organizations would be required to show positive outcomes and solid results as a requirement for support. The emphasis would be outcomes.

Also, there are many organizations that offer resources for rural and underserved areas, but these efforts are often fragmented and difficult to coordinate. The DRA could be helpful in establishing stronger links and mutual goals and objectives among these organizations, eliminating duplication and fragmentation of efforts. The DRA has a stellar reputation for bringing groups together and facilitating exchange. Potential partners in this could be the Rural Health Resource Center in Minnesota, Rural Policy Research Institute in Missouri, the National Rural Health Association, and the Rural Assistance Center (RAC). Similar efforts could be valuable in bringing together national, state and local governmental groups such as HRSA, USDA, HUD, and state health planning agencies to link local entities with all funding and resources.

Promotion of health and wellness programs is often best accomplished as grassroots effort. The Delta Regional Authority Leadership Institute is well-positioned to empower communities and their leaders to undertake the projects and activities identified in the Tool Kit.

Technical assistance will be necessary for local, under-resourced efforts to be successful in implementing grassroots projects. The technical assistance for health programs will be very valuable to local entities to assist in developing needs assessments, grant proposals, and conducting projects. This assistance could be done in partnership with the USDA agricultural agents, or other similar programs.

Online technologies for compiling and sharing information have been very successful and are regularly used by industry support organizations to disseminate news, information and valuable data. DRA should consider developing a "Wikipedia-type system" for its web site to allow citizens to contribute information regarding health programs and other issues of interest in the region. Social network programs such as Facebook may also be beneficial in communicating throughout the region.

As a way of expanding activities DRA should consider organizing regional and sub-regional healthy workforce discussion groups to encourage local corporations to share

experiences in past activities and ideas for future implementations. Approaches will be very dependent on industry type and small corporate groups who share common structures, e.g. desk-bound employee populations vs. construction sites, vs. agriculture can specifically discuss effective, industry tailored interventions.

Section Six

Summary and Recommendations

The DRA has a strong and successful history of bringing together various agencies and groups for the betterment of the Delta Region. This role as leader, facilitator, coordinator and relationship-builder has proved invaluable to the region and is not one that other agencies have chosen. For this reason, we believe that focusing on activities that build on the DRA's strengths will ensure the success of their activities.

A large amount of data exists that catalogues the health and worker productivity of each of the 252 Delta Regional counties. We have compiled much of that information and reviewed the measures that show the issues throughout the region. States and others have done similar compilations. The question is, how do we use this information to positively affect changes in the health of the workforce? Developing the Tool Kit is a good start in providing ideas and information that can be used by organizations, communities, churches and other institutions. But more needs to be done as a follow up to this study.

We therefore recommend:

1. We recommend that the Delta Regional Authority institute a grant program, similar to its Federal Grants Program, to fund health initiatives throughout the region. These grants would be administered and reviewed in a similar fashion to the Federal Grants Program with the similar expectation of proven outcomes.

2. We recommend that DRA compile and produce County Data Reports, similar to the example we have provided in this report on its web site for universal access to the information. Ongoing updates will be required as well as continual efforts to improve the quality of the data.

3. As with most studies of this nature, additional follow up work beyond the scope of the original study has emerged during the course of the investigation. We feel that the following activities could be beneficial in furthering our efforts and provide DRA with better long-term health for the communities. Some or all of these should be considered for a "Phase 2" follow up project.

    a. We recommend that DRA take the lead in coordinating a meeting of state organizations that currently producie health data with the purpose of improving, standardizing, and improving the quality of the data available. We further recommend that the DRA work with these groups to identify additional information that is currently not being captured but that could be of extreme value in assessing the health and wellness of its workforce and other populations.
    b. We recommend that the DRA set up a mechanism to collect and disseminate the Tool Kit programs, best practices and benchmarks using its web site.
    c. We recommend that the DRA use its reputation as a successful convener of disparate groups to pull together rural health organizations for the purpose of establishing stronger links and mutual goals and objectives while reducing duplication and fragmentation in local efforts.
    d. We also recommend that the DRA convene operatives from federal and other governmental programs such as HRSA, USDA, and state health planning agencies to strengthen funding support and assure that local groups and organizations are connected to all resources available. We further recommend that the DRA provide information from these funding sources on its web site.
    e. We recommend that technical assistance for establishing and operating health programs be established through a partnership with the HRSA Office of Rural Health Policy, the USDA agricultural agents, or other programs.
    f. We recommend that the Delta Regional Authority Leadership Institute incorporate mechanisms to help communities and their leaders undertake

the projects and activities identified in the Tool Kit. This would include education into the availability and use of information that will be made available on the DRA web site as well as other resources that are available for health and wellness promotion.

g. As part of the effort to establish health information on the DRA web site we recommend that the DRA establish a "Wikipedia-type system" for allowing citizens to contribute information regarding health programs and other information that could be valuable in the region. We further recommend that social networking systems be used for sharing health and wellness related information.

h. We recommend that the DRA organize regional and sub-regional healthy workforce discussion groups leading to sustainable coalitions of networked stakeholders to encourage local organizations, businesses, faith-based groups, and others to share experiences in past activities and ideas for future implementations.

i. In order to undertake these recommendations we recommend the charter for the Health Advisory Committee be extended and that the Committee be charged with determining the resources necessary to fulfill the recommendations and overseeing the activities that need to further health and wellness activities in the region.

j. Based on our experience with this project, we further recommend that the Health Advisory Committee use in-Delta resources when seeking the resources to undertake these activities. We strongly recommend that the resources of the many educational institutions within the Delta be considered when marshalling these resources.

Section Seven
Appendices

Appendix A	Sample County Data Report
Appendix B	Geographic Interpretations of the Delta
Appendix C	Literature Review
Appendix D	Tool Kit
Appendix E	Web Resources and County Data Web Sites
Appendix F	HAC & Study Team Bios / Contact

Appendix A

Healthy Delta County Profile: Coahoma County, MS

County Descriptors

Urbanicity

Metro/Micro Status: Micropolitan
Rural/Urban Status: Urban Population of 20,000 or more, not adjacent to a metro area
Population: 27,272

Economic Activity[1]: Services-Dependent

Disadvantaged[2]

Housing Stress: Yes
Low Education: Yes
Low Employment: Yes
Persistent Poverty: Yes
Population Loss: Yes

Other[3]

Non-metro Recreation: No
Retirement Destination: No

Healthy Workforce

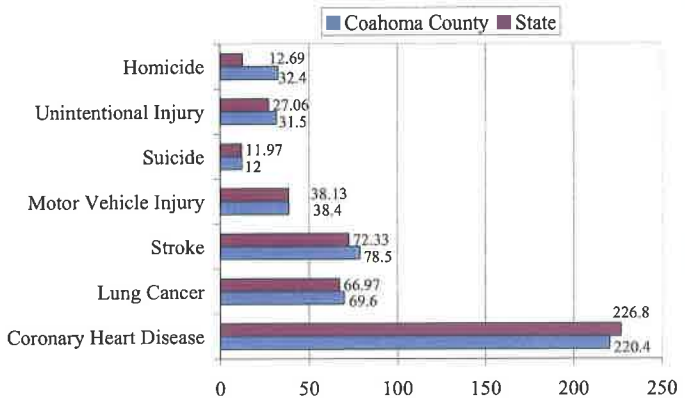
General Health Measures

	Coahoma County	State
Self-Rated Health Status (% Fair/Poor)	22.1	24.52
Avg # of Unhealthy Days in Past Mo	6.1	7.07
Avg Life Expectancy	70.1	73.32
% Low Birthweight	12.2	10.76
Infant Mortality per 1,000: All	16.98	10.57
Infant Mortality per 1,000: Black	19.07	14.58
Infant Mortality per 1,000: White	n/a	7.13

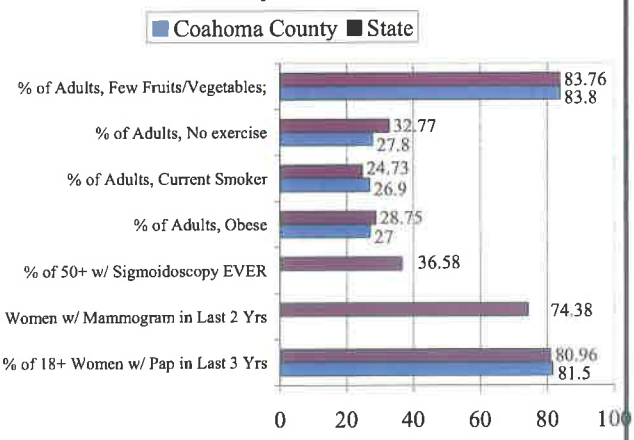
Incidence of Preventable Diseases

% of Population with:	Coahoma County	State
Diabetes	9.1	9.96
High Blood Pressure	n/a	31.77

Mortality Rates per 100,000



Healthy Behaviors



Healthy Workforce

Healthcare Costs

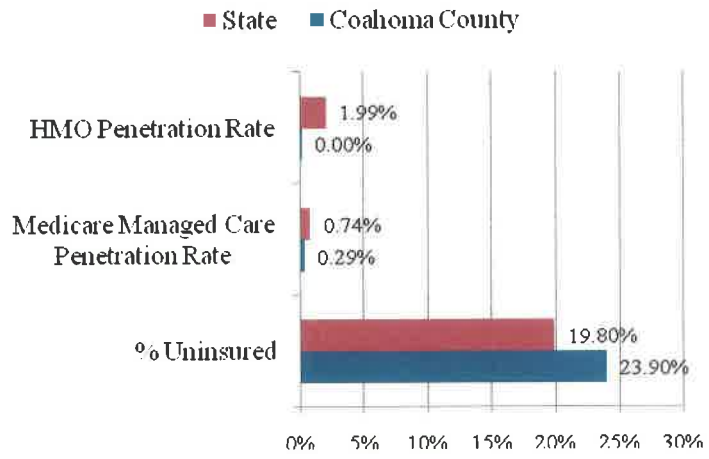
	Coahoma County	State Average/ County
Medicare Pt A Avg Pmt Rate	$439.24	$383.67
Medicare Pt B Avg Pmt Rate	$396.13	$346.02
ER Visits per 1,000	955.12	610.60
Hospital Admissions per 1,000	249.23	148.77
Hospital Inpatient Days per 1,000	1,225.32	979.41

Disability

	Coahoma County	State Average/ County
# employed with disability	2,005	2,418
# not employed with disability	2,880	2,591

Access to Health Care

Insurance Coverage

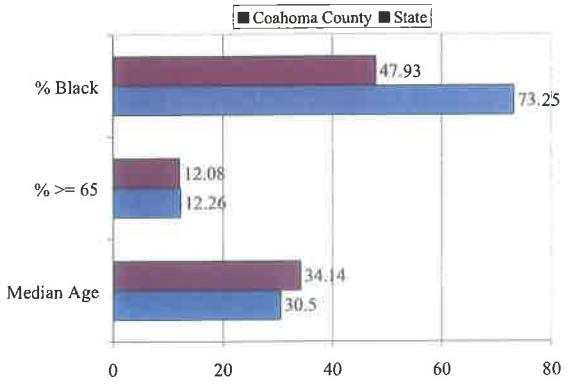


Health Professionals	Coahoma County	State
Physicians per 100,000	175.93	97.39
PCPs per 100,000	66.85	43.26
Specialty Phys per 100,000	158.34	67.48
Nurses per 100,000	missing	103.67
Adv Pr Nurses per 100,000	57.54	21.94
Dentists per 100,000	missing	6.26

Healthcare Facilities	Coahoma County	State
Hospital Beds per 1,000	6.72	3.84
Medicare NH Beds per 1,000	0	1.29
Community Health Centers	2	142
Hospices	2	108
Community Mental Health Centers	0	6
Home Health Agencies	1	56
Ambulatory Surgery Centers	0	64

Demographics

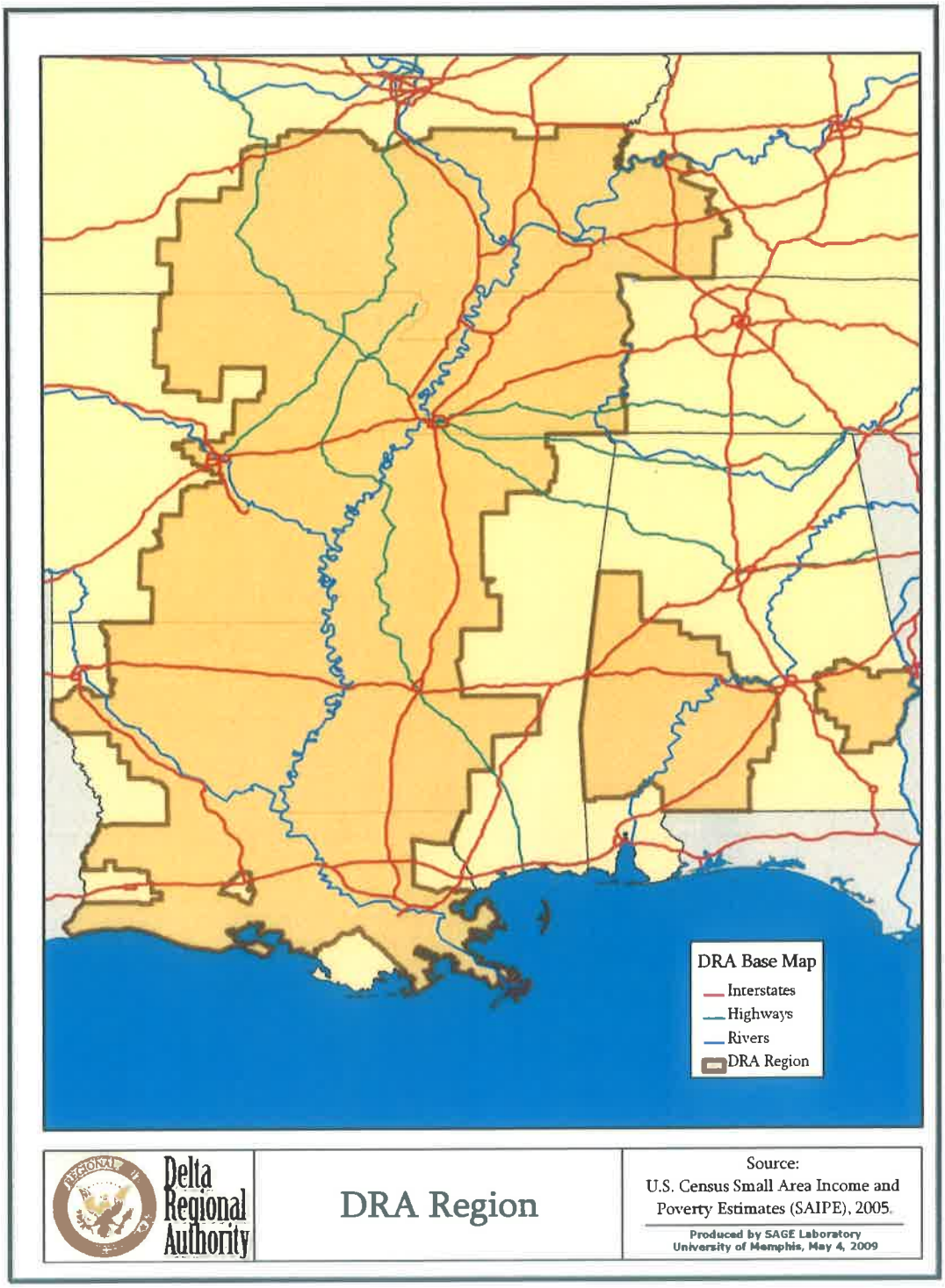
	Coahoma County	State
Median Household Income	23728	$30,460
Median Home Value	51200	$61,739
% Owner Occupied Housing	57.30%	75.60%
% Working Outside County	19.30%	31.87%
Population per Square Mile	49.70	62.65

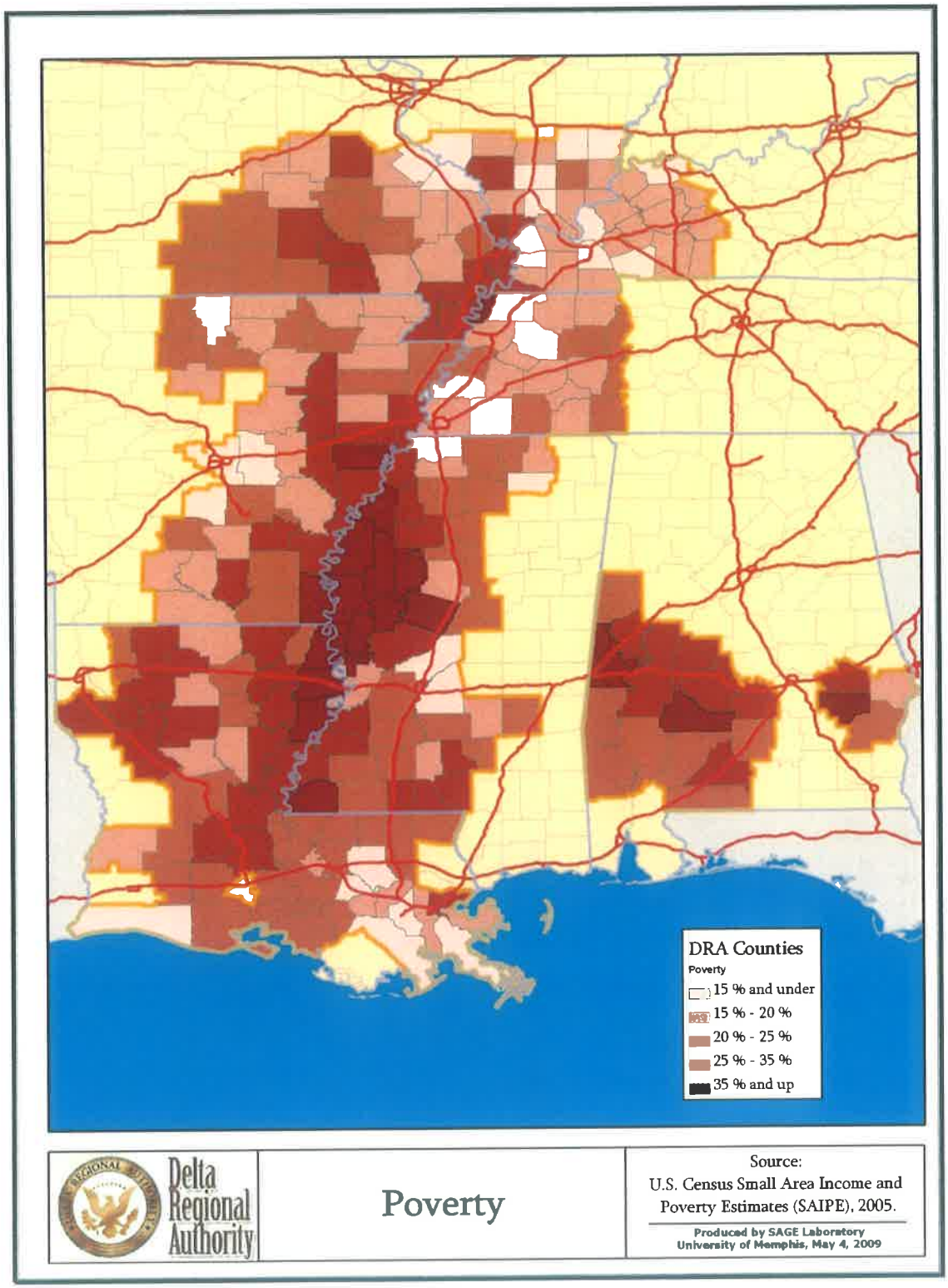


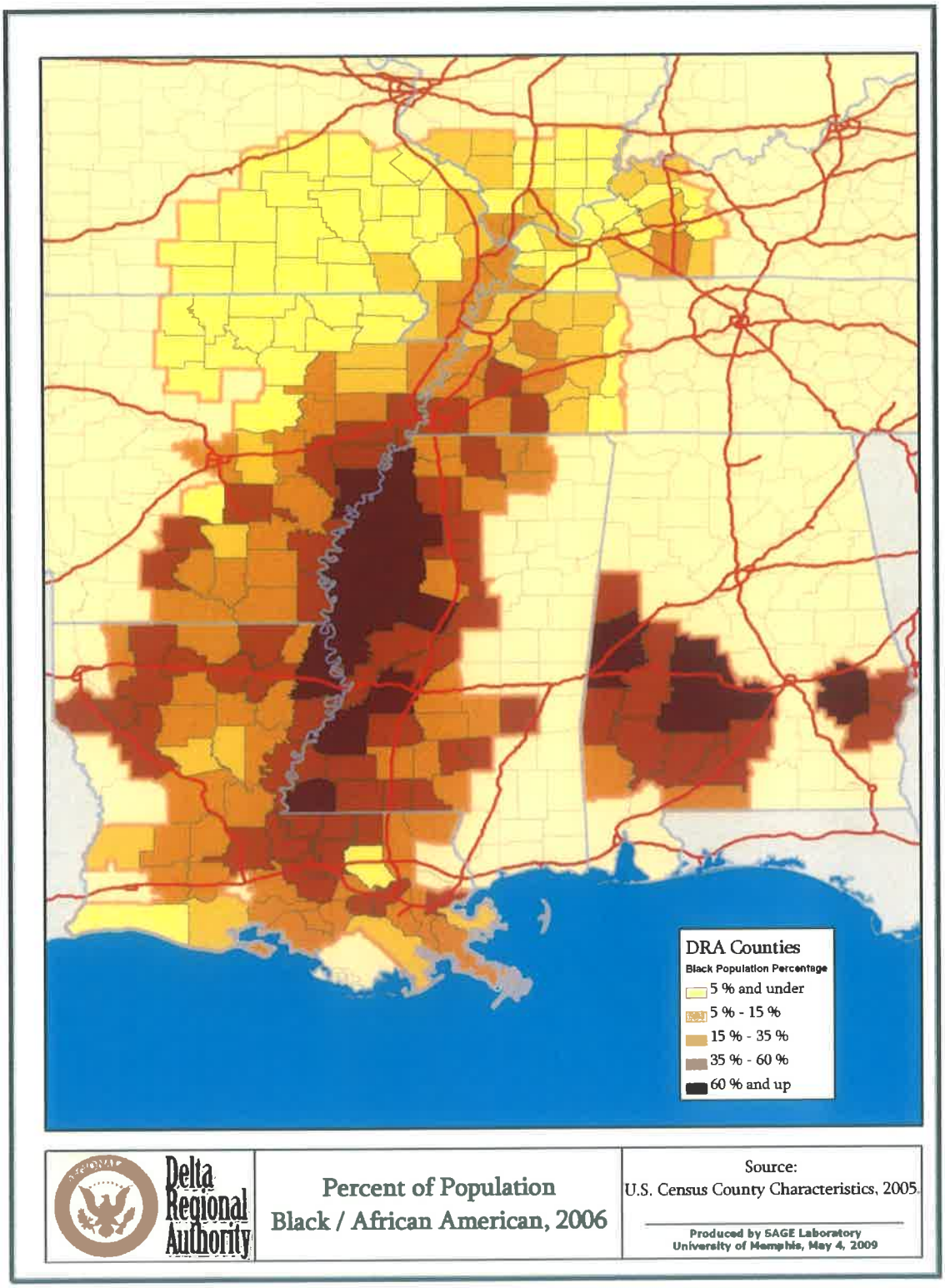
NOTES

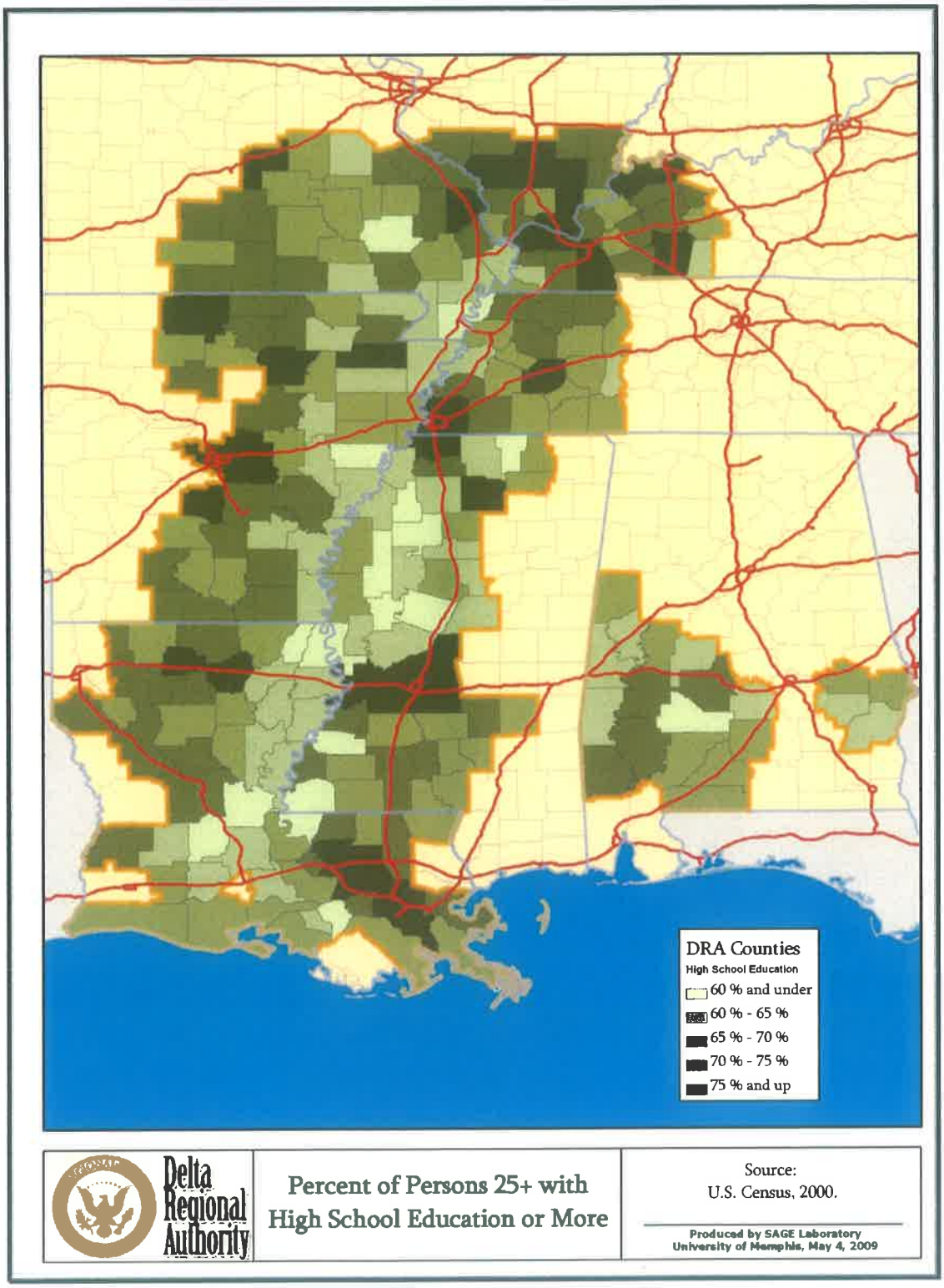
1. Economic Activity Classification
USDA typology classifies counties into 1 of 6 non-overlapping categories of economic dependence: farming-dependent, mining-dependent, manufacture-dependent, Fed/State Govt-dependent, services-dependent or non-specialized-dependent.
2. Disadvantaged Classifications:
Housing Stress: At least 30 % of households had 1 or more of the following: lacked complete plumbing, lacked complete kitchen, paid 30 % or more of income for owner costs or rent, or had more than 1 person per room.
Low Education: 25 % of residents age 25 – 64 did not have high school degree or GED equivalent
Low Employment: Less than 65 % of residents age 21-64 were employed in 2000
Persistent Poverty: 20 % or more of residents were poor as measured by each of the last 4 censuses: 1970, 1980, 1990, 2000.
Population Loss: Number of residents declined both between the 1980 and 1990 censuses and between the 1990 and 2000 censuses.
3. Other Classifications:
Nonmetro Recreation: Classified using a combination of factors, including share of employment or share of earnings in recreation-related industries in 1999, share of seasonal or occasional use housing units in 2000, and per capita receipts from motels and hotels in 1997.
Retirement Destination: Number of residents age 60 and older grew by 15 % or more between 1990 and 2000 due to immigration.

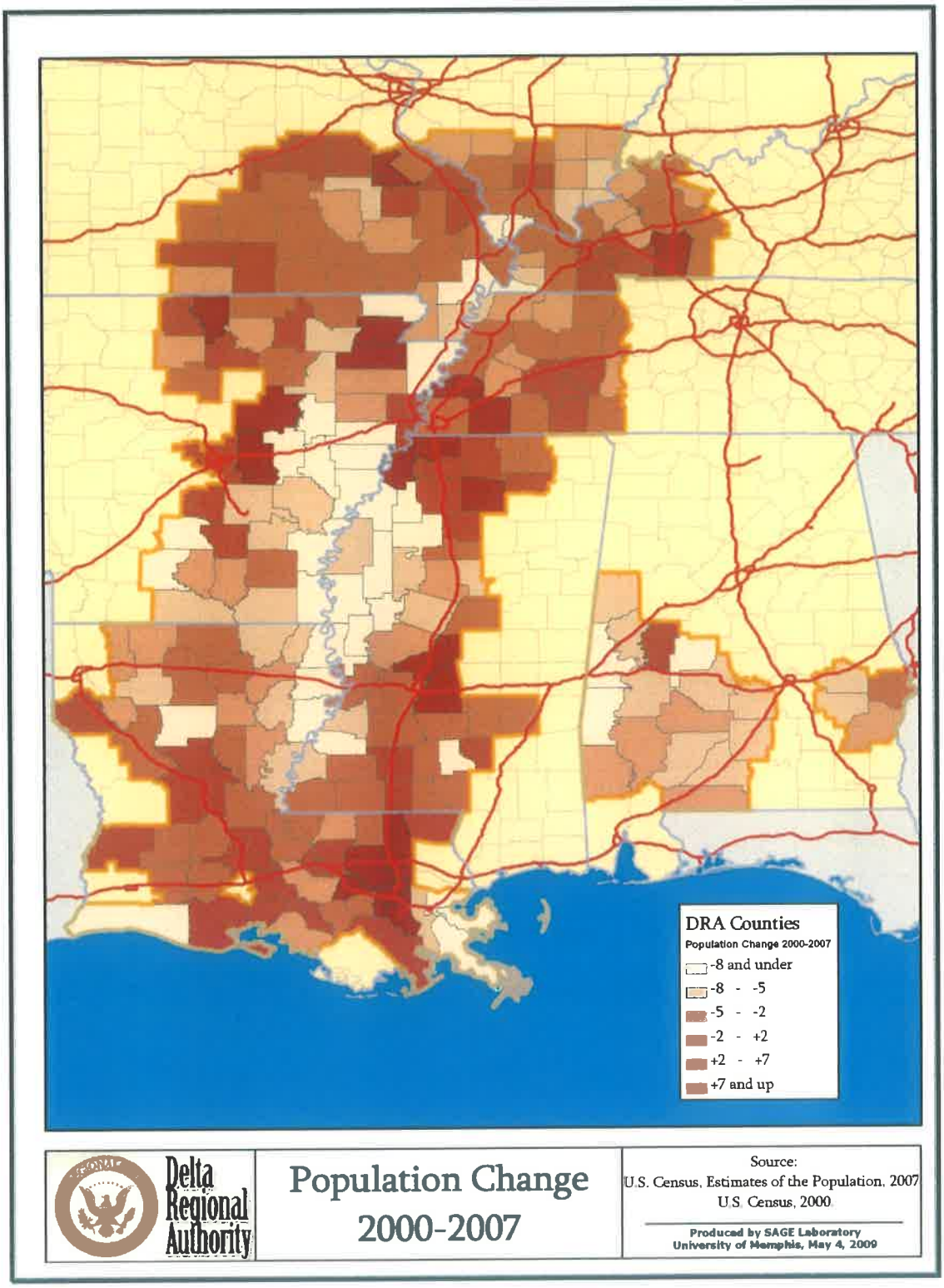
Appendix B
Geographic Interpretations of the Delta

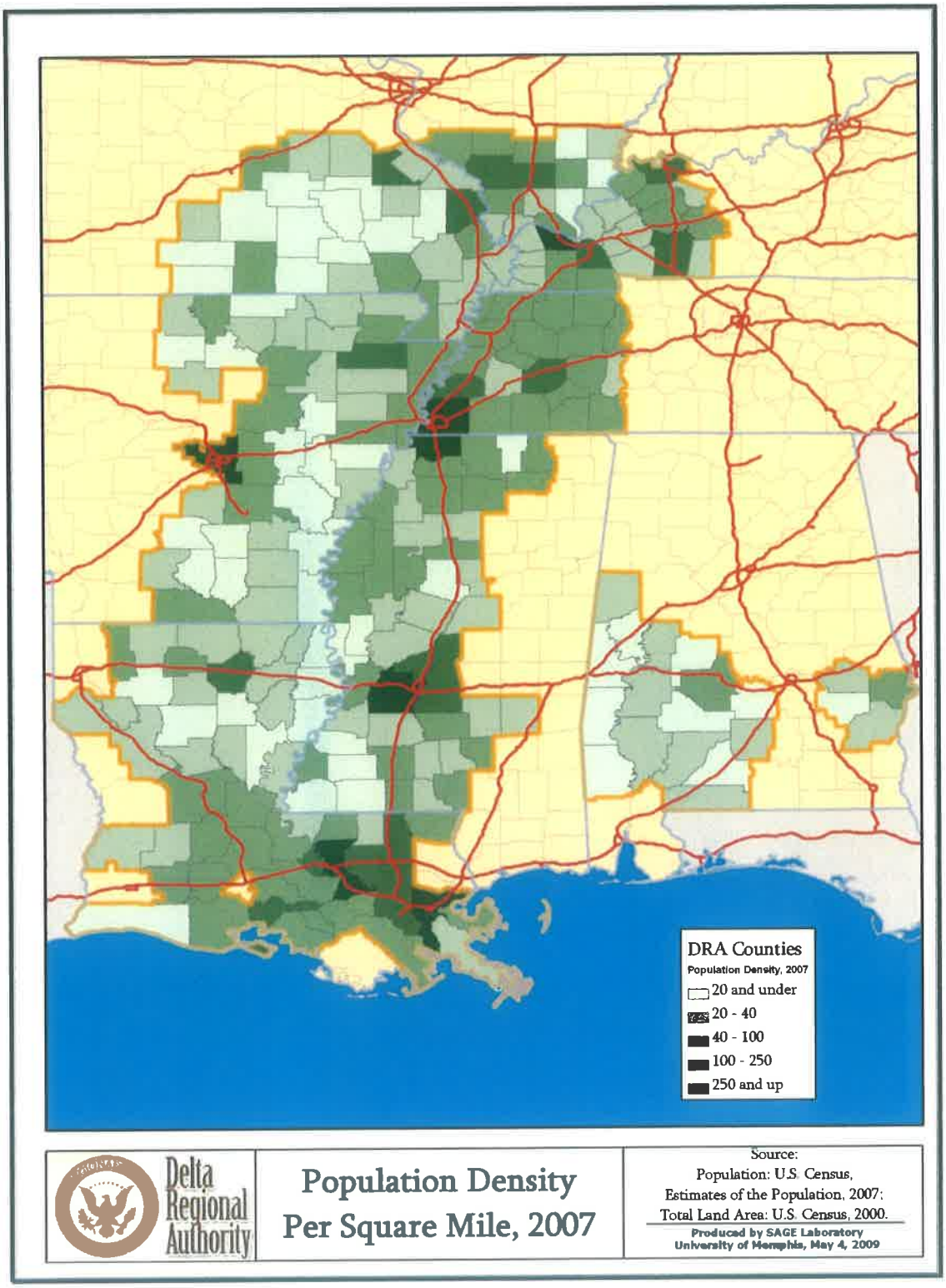


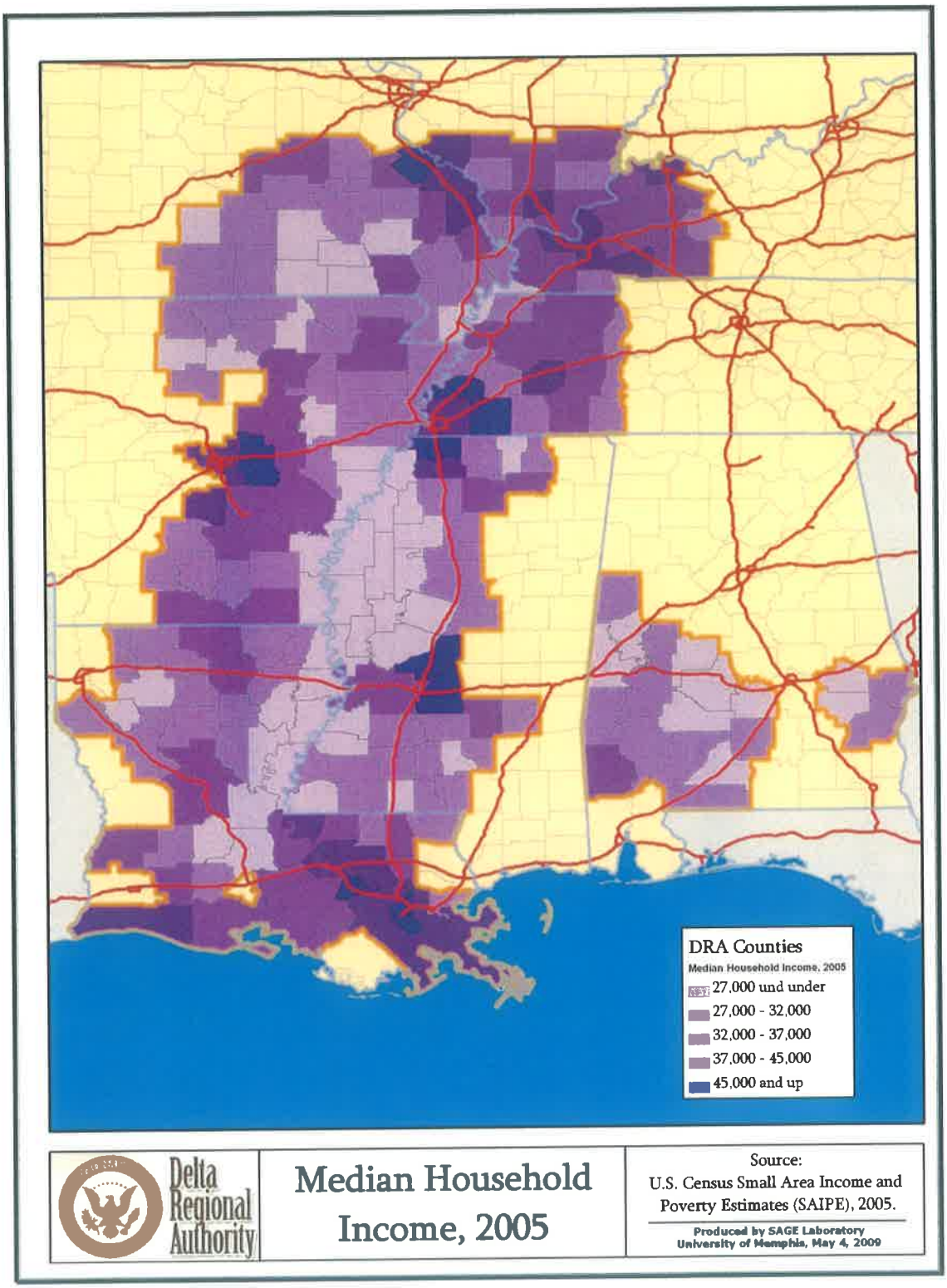


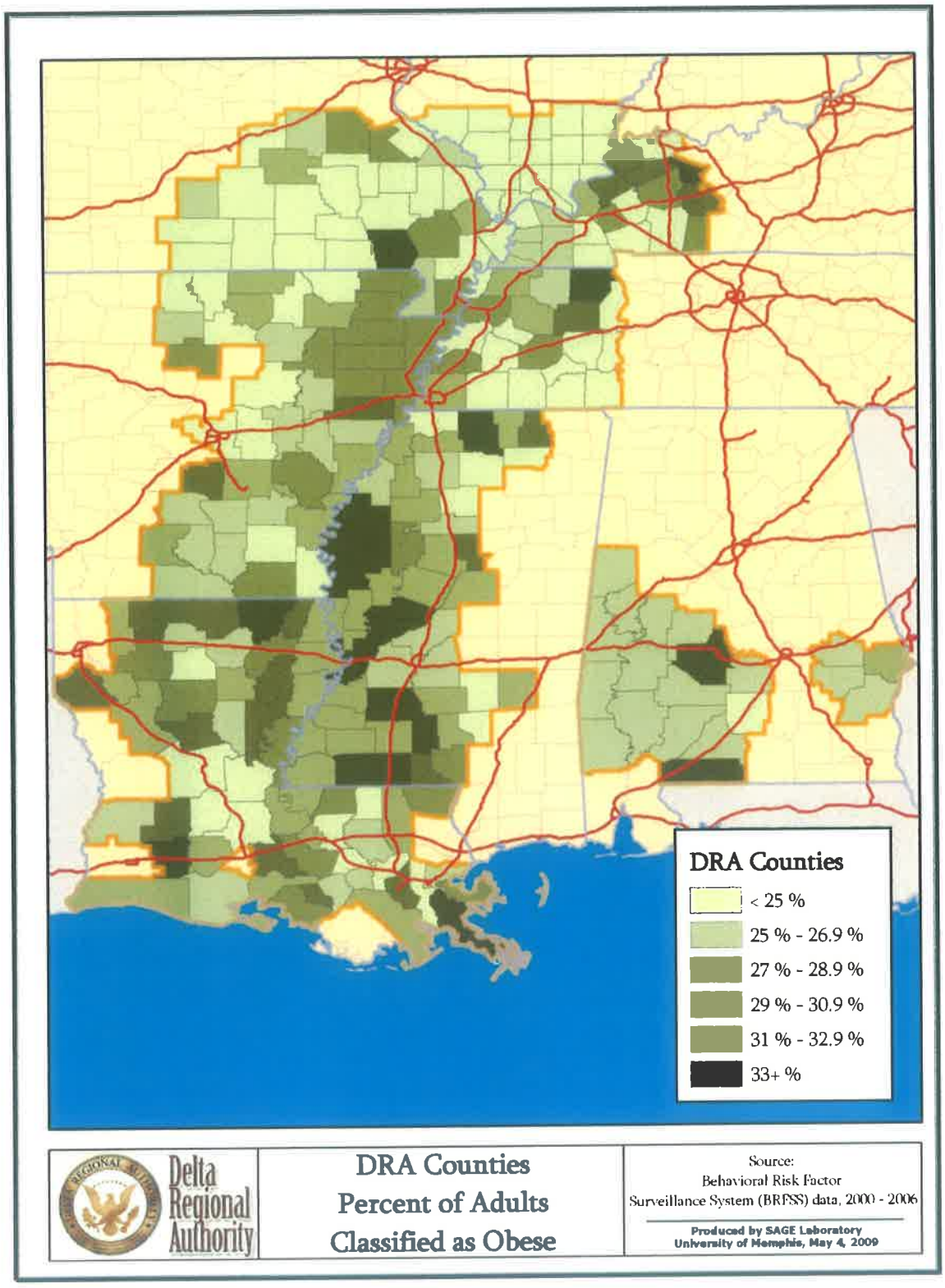












Appendix C
Literature Review

PRODUCTIVITY (Absenteeism and Presenteeism)

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DeBacker, G., Leynen, F., DeBacquer, D., Clays, E., Moreau, M. and Komitzer, M. (2006). Diabetes mellitus in middle-aged people is associated with increased sick leave: the BELSTRESS study. International Journal of Occupational and Environmental Health, Vol. 12, pp. 28-34.

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Appendix D
Tool Kit

The following programs have been identified as successful activities that can be replicated by various groups in the Delta. Detailed information is currently being collected. Examples of complete information follows the list.

East Tennessee Diabetes Program
Sponsor: Dr. Dick Gourley

FedEx Health Literacy Program
Sponsor: Dr. Lorraine Wallace

West Ky. AHEC, World's Greatest Baby Shower
Sponsor: Jamie Knight

Partnership for a Fit Kentucky
Sponsor: Elaine Russell

Get Fit Western Kentucky
Sponsor: Don Crask

REACT, a Regional Partnership for a Fit Kentucky
Sponsor: Meme Perdue

Hopkins County STEP Health & Wellness Coalition
Sponsor: Bernice Crook

Western Kentucky Breastfeeding Coalition
Sponsor: Merritt Bates Thomas

Caldwell County Diabetes Coalition
Sponsor: Kelly Dawes

Pennyrile Allied Community Services Nutrition Outreach & Wellness Program
Sponsor: Meme Perdue

Webster County Wellness Council
Sponsor: Shane Bosaw

Kentucky Delta Rural Project School Wellness Initiative
Sponsor: Joe Larin

Delta AHEC Diabetes Education Clinic (Arkansas)
Sponsor: Becky Hall

Sight Savers of America (Alabama)
Sponsor: Jeff Haddox

KidCheck School Screening Program (Alabama)
Sponsor: Chad Nichols

Coordinated Approach to Child Health (CATCH) – Southern Illinois
Sponsor: Woody Thorne

Jackson County (Illinois) Healthy Community Coalition (JCHCC)
Sponsor: Woody Thorne

Franklin/Williamson Counties Healthy Communities Coalition (FWHCC)
Sponsor: Woody Thorne

Southern Illinois School Based Health Services
Sponsor: Woody Thorne

Southern Illinois Medical- Legal Partnership (Legal Aid to Patients)
Sponsor: Woody Thorne

BASIC (Building Assets Strong in Community)
Sponsor: Woody Thorne

University of Mississippi Medical Center Tele-Emergency Program
Sponsor: Dr. Robert Galli

University of Mississippi TelEmergency Program

Program or Project Name and sponsor:
TelEmergency program
Project of the University of Mississippi Medical Center's Department of Emergency Medicine

Type of Health Related Intervention:
Provides rural emergency medical care in underserved rural areas
Any patient arriving to a rural emergency department utilizing our program can be treated via the TelEmergency program.

Who can implement?
Our program offers two options. The first option is for any emergency department currently staffed but needing board certified emergency specialist consultation. The second option is for emergency departments who have a workforce shortage. In this option, our program trains nurse practitioners to work in small emergency departments with collaboration via telemedicine to our emergency specialists.

Description of the Program:
The TelEmergency program, through which collaborating physicians at the University of Mississippi Medical Center are linked via T-1 lines utilizing real time video streaming with specially trained nurse practitioners in rural emergency departments.

This program provides real-time, unscheduled emergency care to communities that need it the most. This system is available 24 hours a day, seven days a week for any type of consultation necessary for emergency department patients.

Time Frame Required for Implementation:
Upon contract agreement, the time frame for implementation varies from 1-3 months.

Time Frame for Interventions:
This program is available 24/7 with immediate unscheduled interventions available.

Benefits Derived from Program:
Addresses workforce shortages, lack of access to emergency care and is a cost benefit to the hospitals. The patients, hospitals and communities benefit from this program.

Resources required:
- AMX NetLinx NI-3100 Integrated Controller
- Polycom VSX7000e
- Polycom Vortex EF2241 Audio Mixer
- Kramer VX-086YC Video Mixer
- Sony Handheld Camera
- Insignia 36" Tvs
- Clearcube

Costs:
Cost is based on patient volume in the emergency department. The monthly T-1 line charge is discounted to $527.00/month. The nurse practitioner salary is also the responsibility of the rural hospital.

Outcomes from existing programs:
Initial findings have found that the health care delivered by the nurse practitioners via the telemedicine system is at the same standards required at our academic medical center. Current participants in our program have reported excellent patient outcomes, expeditious transfers, high patient and administrator satisfaction rates and substantial cost savings for the rural hospitals.

Louisiana Drug Court Program

Program or Project Name and sponsor:
4th Judicial Drug Court – sponsored by the Louisiana State Supreme Court

Type of Health Related Intervention:
Provides court mandated substance abuse treatment for those who have been convicted of substance related crimes.

Who can implement?
Any court system that prosecutes drug related crimes.

Description of the Program:
Program participants, once enrolled, will spend 3 years in substance abuse treatment. This treatment takes place in 3 phases ranging from intensive treatment (9 hours per week) to maintenance (2 hours per month). Clients are carefully monitored through random drug testing and judicial pressure. A series of sanctions are used that encourage compliance with the program and ultimately sobriety and recovery behaviors.

Time Frame Required for Implementation:
It would take approximately 6 to 8 months to implement the program. It requires bringing the appropriate agencies together, planning the criteria and framework of the program, and then implementing the program.

Time Frame for Interventions:
The intervention phase of the program for the participant takes 3 years. The program, once started, is an on-going program.

Benefits Derived from Program:
There are two primary focuses of the program: 1) harm reduction, and 2) continued remission of substance dependence. The initial goal of treatment is to keep individuals from experiencing the full measure of punitive consequences (incarceration) while at the same time keeping society safe from the harmful consequences of the addict's ongoing use. The second goal of treatment is the encouraging long term sobriety through continued reliance on community resources.

Resources required:
Professional personnel, office space, cooperation between existing government and private healthcare providers.

Costs:
The approximate cost per client served per year is $4500. This is a cost effective measure that saves the public through cost of incarceration/judicial as well as healthcare costs.

Outcomes from existing programs:
The approximate cost per client served per year is $4500. This is a cost effective measure that saves the public through cost of incarceration/judicial as well as healthcare costs.

ALABAMA KIDCHECK

Background

The Alabama Power Foundation and the BCBS Alabama Child Caring Foundation has partnered with various school systems over the past 10 years to provide health screenings in schools. Participating schools select one school day a year for the annual KidCheck day. Bibb and Blount Counties are the models.

How it works

Schools partner with area college nursing programs and organizations from across the state to administer the screenings. This creates a win/win situation by giving the nursing students experience while providing health screenings for our children.

A room at the school is equipped with 8 to 10 different stations for physical assessments including height and weight, body mass index, blood pressure, heart rate, respiratory rate, vision, hearing, oral health, and scoliosis. Any student with a parental permission form qualifies for the screening. After the screenings, parents receive a report and assistance for children needing additional care. Those who are uninsured and are not eligible for Medicaid or All Kids can be covered through the Alabama Child Caring Foundation.

Our Goal

ARAC is seeking to partner with interested school systems to expand the program to at least 1 school system in each of the 8 ARAC regions during the 2008-2009 school year.

Local Ownership

The program is designed for each participating school to take ownership of their own KidCheck program. Each participating school will be encouraged to select a local KidCheck Coordinator and to organize a local KidCheck Steering Committee including representatives from health, education, business, churches, and non-profits in their community. Each school system will also be encouraged to build partnerships with the 2 and 4 year college nursing programs in their area.

Role of ARAC

ARAC will take the lead in assisting schools with preparation and implementation. ARAC is bringing private and public partners together from the state and regional level to assist in making KidCheck a success. We have a State KidCheck Steering Committee which brings experience with health fairs and resources to the table. ARAC will also be providing interested schools with a KidCheck Training Video as a resource.

Sight Savers America

1. Program/Project Name:

The Children's Eye Care Program

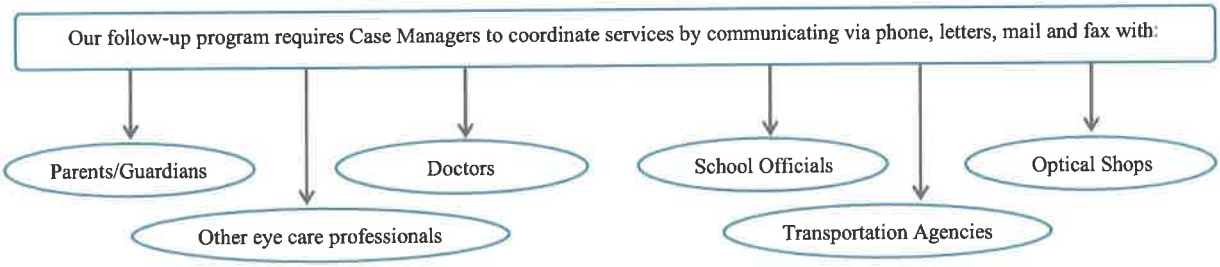
2. Type of Health Related Intervention:

- Vision-screening for ALL pre-school and school age children in the Program and thorough follow-up eye care services for ALL those who fail the screening.
  - ⇨ The follow-up service is an extensive program that ensures each child receives the eye care he or she needs.
  - ⇨ **These eye care services are provided at no cost to low income families:**

BLIND AIDS FOR CHIDLREN WHO ARE	EYEGLASSES	ASSISTANCE WITH APPLYING FOR
EYE EXAMS	SURGERIES	TRANSPORTATION TO AND FROM
MEDICATIONS	VISION AIDS CHIDLREN WHO ARE FOR LEGALLY	ALL OTHER TYPES OF EYE CARE

3. Who can implement:

- The vision-screening component of the Program can be implemented by a variety of organizations that have expertise in screening children.
- The follow-up component of Sight Savers' program coordinates comprehensive eye care services and utilizes an extensive database for tracking and reporting the outcome of each child.
- It should be implemented by an organization highly experienced with detailed case management.
- Currently, Sight Savers America (SSA) is the only organization in the country with extensive experience with this model of detailed follow-up case management.

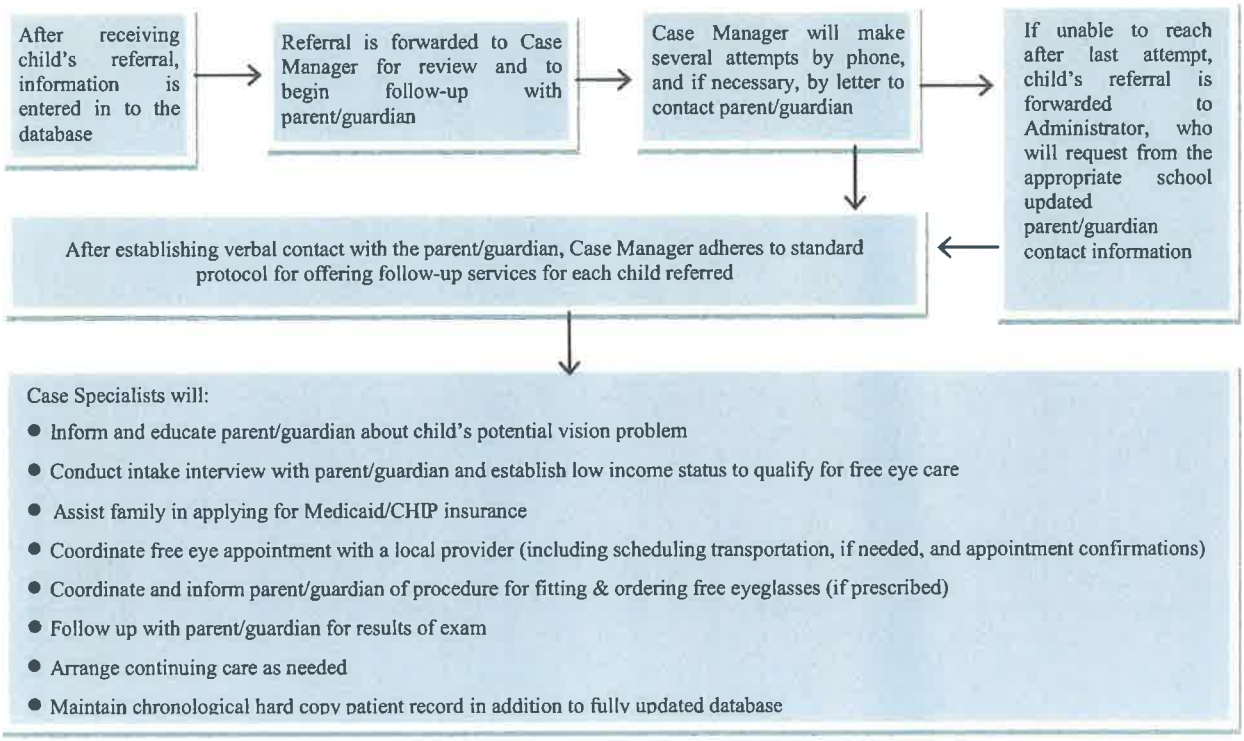


We maintain a chronological hard copy of patient records, along with a fully updated computer database that monitors each step of the protocol process for every child.

Case Managers at SSA train for 3 months in order to adequately prepare for the follow-up component of our program.

4. Description of the Program:

- Our work begins when a child is referred to SSA.
- In addition to receiving referrals from screening agencies, we also welcome them from other sources such as parents, teachers, doctors, and school administrators.
- **Our 27 page follow-up protocol briefly summarized below outlines some of the major aspects of our eye care follow-up:**



- **EYE CLINICS:** Throughout the year, SSA sets up mobile eye clinics in rural areas where eye care providers are not available. These eye clinics give SSA the opportunity to extend services to children who would otherwise not have access to eye care.
- **VISION REHABILITATION SERVICES FOR CHILDREN WHO ARE BLIND OR LEGALLY BLIND:** We collaborate with members of our extensive volunteer network of eye care providers who donate services to the children in our Vision Rehabilitation Program, allowing us to purchase necessary treatments at no cost to eligible families.

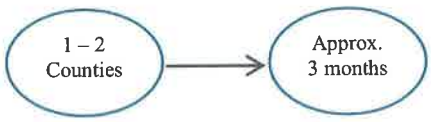
SSA'S VISION REHABILITATION DEPARTMENT WILL:

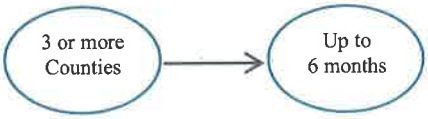
- ✓ **Identify children who have severe vision impairment**
- ✓ **Conduct intake with family to qualify for free services**
- ✓ **Coordinate a comprehensive low vision exam with a low vision doctor in our network where he or she will recommend appropriate low vision equipment**
- ✓ **Purchase and deliver equipment to child's home and provide a complete training session on how to use new equipment**
- ✓ **Arrange continuing care as needed**
- ✓ **Maintain chronological hard copy patient record in addition to fully updated database**

SSA also organizes low vision mobile eye clinics in areas where there are a concentrated number of children who are legally blind or blind. This is an opportunity for them to be examined by a low vision expert and receive the equipment prescribed by the doctor.

5. Time Frame Required for Implementation:

Implementation will vary with size and number of counties.





Outlined below are the major preliminary steps necessary in order to achieve a successful program:

- ⇨ Work with a vision screening agent(s) to schedule screenings and establish protocol for collecting screening information;
- ⇨ Build a provider network with the optometry/ophthalmology associations, optical dispensaries, low vision/blind organizations and other eye care professionals;
- ⇨ Build relationships with the school administrators throughout the counties;
- ⇨ Build relationships with other key stakeholders to ensure full community involvement in the Program;
- ⇨ Work with partners to raise public awareness on eye care issues and to promote the Program;
- ⇨ Develop vision rehabilitation services component of program.

6. Time Frame for Interventions:

Eye care services should be completed within 60 days of vision-screening for all children, except those that require continuing treatments.

7. Benefits Derived from Program:

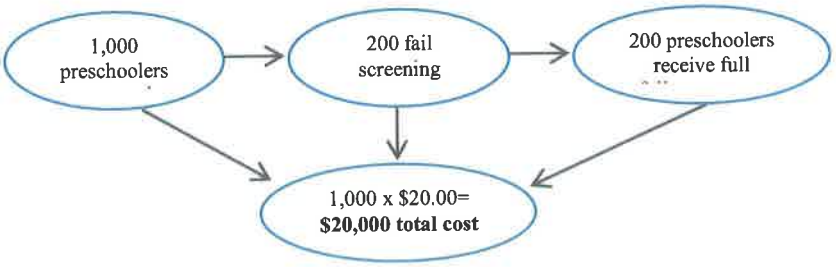
- Vision care for children is one of the most neglected health needs in the United States. Poor vision undermines reading abilities and is ultimately detrimental to education. In the overwhelming majority of cases, poor vision can be corrected with an eye exam and eyeglasses. These simple steps can restore the vision of almost all children to 20/20, increasing their reading skills and enhancing both their education and social interactions.
- Approximately 15% of children who fail vision screenings have amblyopic conditions, such as strabismus and anisometropia that can be cured 90% of the time ***if detected early enough***.
- Other more uncommon eye diseases such as cancers, cataracts, and glaucoma, ***if caught at a young age,*** can be treated as well.
- When facing a sight-threatening condition, the younger a child is when a problem is detected, the better chances there are of saving his or her sight!
- For the children in our Program who are blind or legally blind, the equipment they receive enhances their lives tremendously. They become more independent and self-motivated and are able to read and write! Activities most of us take for granted.

8. Resources required:

- The donation of many in-kind services by optometrists, ophthalmologists, optical shops and other eye care professionals help reduce the costs of this program.
- *The combined cost of vision-screening and follow-up eye care is approximately $20/child* and a funding source(s) from the community would need to be secured in order to implement the Program (donations, foundations, special fundraising events, local, state or federal funds).
- For the long term sustainability of the Program, we will partner with communities to secure renewable resources. We have been successful in collaboratively raising funds in the communities we work in for many years.
- Once the Program is established in a community, Sight Savers' commitment is on a long term basis. We are there to help ensure that the children's eye care needs are met and will be there as long as we are needed.

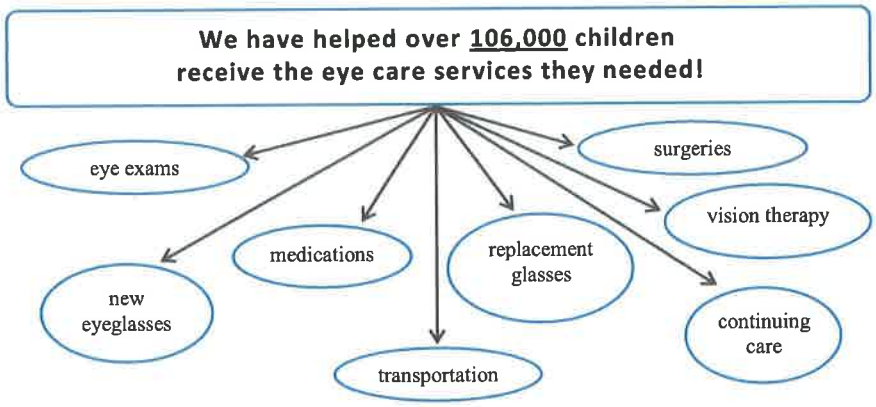
9. Costs/County:

Using the $20/child rate for the combined services – sample cost:

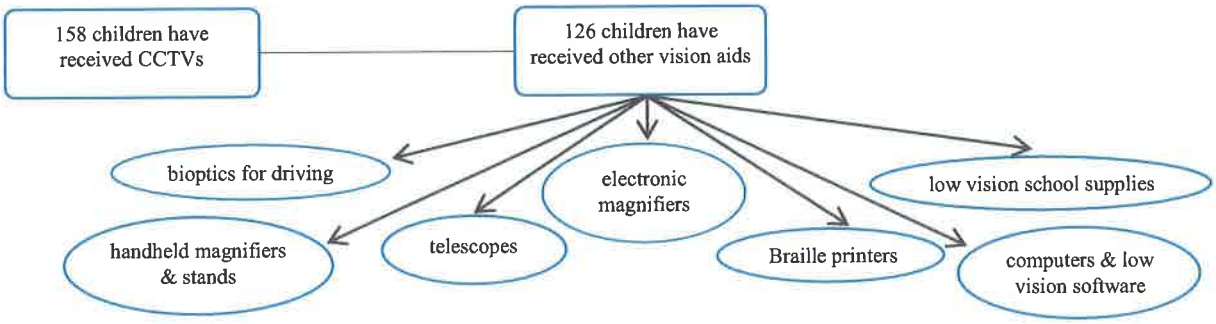


10. Outcomes from existing programs:

- The primary objective with our existing program is to coordinate timely and comprehensive eye care with follow-up services for underserved children and we continue to succeed in that goal.

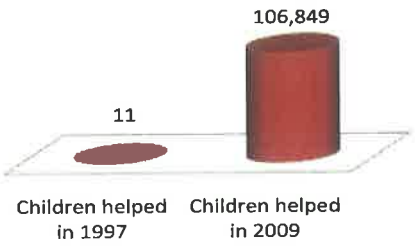


- Since 2001, over 280 Alabama and Mississippi children who are legally blind or blind have entered SSA's Vision Rehabilitation Program.



- We are fortunate to have a diverse funding base and a wonderful network of vision care professionals with whom we partner. They donate their services and collaborate with us in achieving our mission. Sight Savers is a national model for how to do children's vision care the right way!

Sight Savers of America growth since inception:



Appendix E

Selected Web Resources and State Health Data Sites

U.S. Bureau of Labor Statistics
www.bls.gov

Centers for Disease Control
www.cdc.gov

U.S. Census Bureau
www.census.gov

Center for Medicare & Medicaid Services
www.cms.hhs.gov

Governmental Accountability Office
www.gao.gov

U.S. Department of Health & Human Services
www.hhs.gov

- U.S. Department of Health & Human Services – Health Resources and Services Administration – Rural Health Policy Publications
www.ruralhealth.hrsa.gov/pub/

Center for Applied Research & Environmental Systems (CARES)
www.cares.missouri.edu

Bureau of Health Professions – Public Health Training Center
www.bhpr.hrsa.gov/publichealth

Kaiser Family Foundation
www.kkf.org

Rural Assistance Center
www.raconline.org

Rural Health Resource Center
www.ruralcenter.org

Rural Policy Research Institute (RUPRI)
www.rupri.org

The Robert Wood Johnson Foundation for Health and Health Care Improvement
www.rwjf.org

State Health Data Web Sites

Alabama:

http://www.adph.org/healthstats/assets/CountyProfiles07_A-J.pdf

Arkansas:

www.**healthyarkansas**.com/

Kentucky:

www.chfs.**ky**.gov/dph/epi/co**healthprofiles**.htm

Illinois:

www.idph.state.il.us/health/statshome.htm

Louisiana:

www.dhh.**louisiana**.gov/OPH/PHP%202005/

Mississippi:

http://www.msdh.state.ms.us/msdhsite/_static/29,0,211.html

Missouri:

http://www.dhss.mo.gov/

Tennessee:

http://tennessee.gov/tniph/

Appendix F

Biographies

Health Advisory Board

Michael Caudle

Dr. Caudle is Vice Chancellor for Health Affairs and Governmental Relations at the University of Tennessee. He serves as content resource for UTHSC and is health and policy advisor to federal and state representatives. He also coordinates state-wide UTHSC resources. He has worked for UT for 25 years and practiced Ob-Gyn for 30 years until 2007. Previously he was dean of UT Graduate School of Medicine from 1995 to 2005, before accepting the Vice Chancellor position.

Therese Hanna

Ms. Hanna is currently Executive Director of the Center for Mississippi Health Policy. Prior to this position, she served as State Insurance Administrator for eleven years, where she was responsible for managing the State and School Employees' Life and Health Insurance Plan, the State Agencies' Workers' Compensation Trust, and the insurance component of Mississippi's State Children's Health Insurance Program (SCHIP). During this time she was named by The *Mississippi Business Journal* as one of Mississippi's Leading Business Women. Previous experience includes seventeen years with the Mississippi State Department of Health where she served as a health planner and analyst and as Director of Policy and Planning. Ms. Hanna is a Phi Beta Kappa graduate of Rhodes College with a Bachelor's degree in biology and psychology and holds a Master of Health Sciences degree in health care administration from Mississippi College.

The Center for Mississippi Health Policy is an independent, non-partisan, non-profit organization that provides objective information to inform health policy decisions. The Center's work involves communicating research, examining health status and health care delivery trends, and analyzing relevant health policy issues affecting Mississippi. Examples of the Center's projects include an economic analysis of the University of

Mississippi Medical Center, research on state initiatives to address childhood obesity, an analysis of the state's trauma care system, a review of issues associated with the reauthorization of the State Children's Health Insurance Program (SCHIP), a study of options available to Mississippi in establishing a statewide health data system, and a detailed examination of children's health coverage in Mississippi.

Les Johnson

Dr. Johnson is Chief of Surgery and Director of Surgical Services at Louisiana State University Health Sciences Center – Monroe. He also serves as Professor of Surgery at LSU Health Sciences Center in Shreveport. He has served the State of Louisiana in many health profession capacities over the past 35 years. Included in these are Chair of the Louisiana Emergency Response Network Public Policy, Legislative and Regulatory Committee, member of the Governor's Health Care Advisory Council, member of the Louisiana Recovery Authority Healthcare Taskforce, President of the Louisiana Chapter of the American College of Surgeons, and Chairman of the Louisiana Trauma/Homeland Security Network Coalition. Dr. Johnson resides in Rayville, Louisiana.

Robert Brooks

As Vice President for Education and Research at Trover Clinic Foundation, Inc. in Madisonville, Ky., Mr. Brooks is responsible for the comprehensive educational programs, research, and telemedicine activities of the Foundation.

Mr. Brooks is a past-president of the Kentucky Rural Health Association.. He is a member of the Board of Directors of the Foundation for a Healthy Kentucky, and serves on the Murray State University Regional Stewardship Advisory Committee, Kentucky Rural Health Association, Kentucky Primary Care Association, and Kentucky Institute of Medicine.

He has spent much of his professional career working to improve health care for vulnerable, unserved, and underserved individuals and families in both rural and inner-city environments. Working with local communities to assess their health care needs and

assets for the purpose of alleviating shortfall, Mr. Brooks continues to serve as a guiding force in this area.

Earning a B.A. from the University of Arkansas in 1970, Mr. Brooks has worked for the Kentucky Department for Health Services, the Arizona Department of Health, and has been associated with Trover Foundation since 1986.

Mr. Brooks is an active member of the National Rural Health Association, Kentucky Rural Health Association, Kentucky Primary Care Association, American Management Association, and the American College of Healthcare Executives.

He resides on a farm in northern Hopkins County near Hanson with his wife Deborah.

Woody Thorne

Woody Thorne is Administrative Director of Community Affairs for Southern Illinois Healthcare, a not-for-profit integrated health care system employing 2700 in southern Illinois. His responsibilities include the direction and oversight of the organization's marketing, communications and media relations, fund development, and community benefit activities.

Thorne also serves in a leadership role of ConnectSI, a twenty county collaborative economic and community development initiative in southern Illinois, as Vice-Chair of the ConnectSI Leadership Board and Co-Chair of the Healthcare Community of Interest, and is immediate past-President of the Carbondale, Illinois Chamber of Commerce. Through his work Thorne is working to forge an improved integration of community and economic development with efforts to improve the health of the region's workforce.

Thorne has served as principal investigator on a number of federal, state, and private grant funded efforts to improve the health of those identified with disproportionate, unmet health needs in the southern Illinois region.

In 2007, the CDC recognized the SIH Community Benefits department as a "Partner in Advancing Public Health" and in 2008, Thorne was recognized as a "Leader Among Us" in the region. Thorne serves numerous community organizations as a board member or volunteer and is a committed health advocate for the community.

Mollie Mennell

Mollie Mennell is Deputy of Long Term Care Quality and Administration for the Bureau of TennCare based in Nashville, Tennessee.

Marie Peoples

Ms. Peoples began her career as a substance abuse therapist within Missouri's correctional system. Ms. Peoples worked within several of Missouri's prisons with a variety of offender demographics and correctional programs. Ms. Peoples has also worked for the Missouri Supreme Court as a Drug Court Training Specialist, the Department of Mental Health in the role of Women's and Children's Treatment Specialist, and as the Department Staff Training and Development Coordinator. Ms. Peoples most recently served as the Executive Director of Substance Abuse Services for Alternative Opportunities, Inc.

In this capacity Ms. Peoples managed a women's and children's Medicaid funded residential and outpatient recovery center in Missouri and Arkansas, as well as a residential transitional living program for youth in Missouri's foster care system. In this position Ms. Peoples worked extensively with underinsured, uninsured, and underserved rural populations in Missouri and Arkansas.

Currently Ms. Peoples is the Office Chief for the Offices of Primary Care and Rural Health, Department of Health and Senior Services. Ms. Peoples holds a bachelors degree in Criminal Justice Administration, Masters Degrees in Sociology, Criminal Justice, and Public Health and is currently working on her PhD in Epidemiology.

Chad Nichols

Mr. Nichols was appointed by Governor Bob Riley in May 2007 to serve as Assistant Director of the Alabama Rural Action Commission. He has also served as the Project Manager of the Health Committee of the Governor's Black Belt Action Commission (BBAC) since 2003. He was recently honored as a Healthcare Hero by the *Birmingham Business Journal.*

Nichols also serves as the State Director of the Governor's KidCheck initiative. KidCheck was created by Governor Riley in May 2008 as a new initiative of the Alabama Rural Action Commission. It is designed to expand the model school-based health screening programs in Bibb and Blount County that have successfully reduced absenteeism and decreased the number of uninsured children in those school systems. Under Nichols' direction, KidCheck is now being implemented in over 20 new school systems all across Alabama.

Under his leadership for the past five years, the BBAC Health Committee has been recognized by the AUM Center for Government for its success in improving the quality of health care in the Black Belt. The BBAC Health Committee created the Black Belt Eye Care Consortium, an eight member alliance that has provided thousands of free eye glasses and hundreds of free sight saving treatments to underserved children and adults in Alabama's Black Belt. In addition, the Health Committee is responsible for the elimination of a 30 year old state regulation that prevented dialysis in rural areas of the state. This led the way to the opening of a new dialysis center in Perry County.

Before holding his current positions, Nichols also worked in various other capacities for Governor Riley over the past five years including working in the Governor's Policy and Legislative Offices. He also serves on the Board of Directors of the Southeastern Diabetes Education Services and on the Community Advisory Board for the UAB Minority Health and Research Center. Nichols was also appointed by Governor Riley to the Delta Regional Authority Leadership Institute's 2006 - 2007 class.

Joe Thompson

Joseph W. Thompson, MD, MPH, Director of Arkansas Center for Health Improvement (ACHI), is an Assistant Professor at the University of Arkansas for Medical Sciences (UAMS) in the College of Medicine, Department of Pediatrics, and the College of Public Health, Departments of Health Policy & Management and Maternal & Child Health. He is also Surgeon General for the State of Arkansas.

He is a general pediatrician and preventive medicine specialist whose professional activities focus at the interface of policy research and practice. Dr. Thompson has supported the Arkansas Legislature in its deliberations of the Tobacco Settlement proceeds, evaluated the quality of managed care programs serving children in commercial and Medicaid managed care, and conducted research at the state and national levels as the State Children's Health Insurance Programs were deployed. His current activities include general attending responsibilities in the clinic and hospital, population and policy assessments through ACHI and policy-relevant research activities associated with the Agency for Healthcare Research and Quality (AHRQ).

Dr. Thompson has served as the Principal Investigator on behalf of the state for both the State Planning Grant Program funded by the Health Resources and Services Administration and the State Coverage Initiative Demonstration Grant funded by the Robert Wood Johnson Foundation. Through these grants, he is leading the development of the state's strategic plan for expanding health insurance coverage. Current activities include expanding the use of health data to inform and improve health policy development at the state and national levels.

He received his BA in Chemistry from Hendrix College, his MD from UAMS, and his MPH from the University of North Carolina at Chapel Hill. He is a board certified physician in pediatrics and preventive medicine.

Steven B. Jones

Steven B. Jones of Marion is Deputy Director of the Department of Human Services for the State of Arkansas and a former legislator in the Arkansas General Assembly

representing a portion of Crittenden County. Jones served as a member of the Earle City Council from 1986-1990. He is a former chairman of the Delta Services Corps Board and past vice chairman of the AETN Commission. He is a charter member and was first president of the Earle Chamber of Commerce, and he is a current board member for the West Memphis Area Chamber of Commerce. Jones attended Arkansas State University where he studied communications and business. He was also previously the general manager for Crittenden Publishing Company in West Memphis. Jones and his wife, Dr. Susan Jones, have two children.

Team Bios / Contact

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The principal investigators in this project include Drs. J.M. "Mickey" Trimm, Teresa Waters, and Eric Baumgartner. They will be assisted by Ian Child and James Byrd, doctoral students at the University of Alabama at Birmingham. Below is biographical documentation of the principals' credentials.

Jerry M. "Mickey" Trimm, Ph.D.

Dr. Mickey Trimm is Associate Professor of Healthcare Management at The University of Alabama at Birmingham. Dr. Trimm teaches in the areas of Healthcare Strategy, Healthcare Information Technology and Operations Management. He also oversees the undergraduate internship program for the School.

He has been involved in healthcare strategy and operational analysis for over 30 years, with experience in healthcare environments ranging from large multi-hospital systems to small, rural facilities. Dr. Trimm has performed various consulting assignments in the strategic planning, facilities development, performance and productivity improvement, quality management, and information systems areas of healthcare operations.

As the president and principal consultant for TwoMark Healthcare Associates, a healthcare management consulting company based in Birmingham, Alabama, Dr. Trimm has extensive experience working with communities and organizations to plan, design, and build healthcare facilities. These projects typically include the project planning requirements, facilities design and equipment planning along with construction coordination. Dr. Trimm has worked on the design and equipping of hospitals, nursing homes, ambulatory care centers, and primary care facilities.

A native of West Alabama, Dr. Trimm is currently working with many communities in the Black Belt area of Alabama where he has been supported by grants from the Robert Wood Johnson Foundation's Southern Rural Access Program, the Delta Regional Authority, and local community development programs. He currently serves as Co-chair of the Governor's Black Belt Action Commission Healthcare Task Force and is Healthcare Advisor for the Governor's Alabama Rural Action Commission

Dr. Trimm received his Ph.D. in Healthcare Strategic Management at the University of Alabama at Birmingham. His dissertation addressed physician relations with healthcare organizations. Dr. Trimm also holds degrees in Industrial Engineering from the University of Alabama and business (MBA) from Samford University. He began his healthcare experience in 1979 in Management Engineering at The Baptist Health System in Birmingham.

Dr. Trimm is a fellow in the Healthcare Management and Information Systems Society (HIMSS) and past national president of the Society for Health Systems (SHS).

Teresa Waters, Ph.D.

Dr. Teresa Waters is a health economist and associate professor at the University of Tennessee School of Medicine. She earned her B.A. in Accounting at Dordt College (Sioux Center, Iowa, 1987) and her Ph.D. in Economics at Vanderbilt University (Nashville, Tennessee, 1992). Her research focuses on health care financing and health policy. She has received research funding from numerous federal and private agencies,

including the Agency for Healthcare Research and Quality (AHRQ), the Health Resources and Services Administration (HRSA), the Centers the National Cancer Institute (NCI), The Robert Wood Johnson Foundation (RWJ) and the Kaiser Family Foundation (KFF). Her research has been published in a number of well-known journals, including the *Journal of the American Medical Association*, *Health Affairs*, *Medical Care*, *Inquiry*, and *Quality and Safety in Health Care*.

Prior to her tenure at the University of Tennessee, Dr. Waters was a research associate professor and Deputy Director at the Institute for Health Services Research and Policy Studies at Northwestern University (1992 – 2000). In this position, she was responsible for managing the Institute's $7 million budget, overseeing faculty research, and leading strategic planning efforts. She also served as Principal Investigator on numerous grants and taught health economics in the Department of Economics.

Since arriving at the University of Tennessee (2000), Dr. Waters has been an associate professor in the Department of Preventive Medicine, conducting health economics and policy research, teaching courses in health services research, and overseeing master's and dissertation research. During her tenure at the University of Tennessee, she has also served as Associate Director for Research at the Center for Health Services Research and Director of Research for the Outreach Center.

Eric Baumgartner, M.D., M.P.H.

Dr. Eric Baumgartner is a career public health physician engaged in a variety of community and national activities focused on issues of population health and access to care. Currently he serves as Policy and Program Planning Director for the Louisiana Public Health Institute and as a member of the Georgia Health Policy Center Technical Assistance Program team for HRSA's Rural Health Network Development grantees. Dr. Baumgartner also served as Director for the Tulane University School of Medicine Preventive Medicine Residency in 2006. He is currently an ex-officio member of the LA Task Force for the Working Uninsured. In addition, Dr. Baumgartner continues to

engage in public speaking, facilitation and community coaching for access to care initiatives nationally.

Formerly, Dr Baumgartner served as the Director of the Community Access and State Planning Programs of the federal Health Resources and Services Administration in Rockville, Maryland. Prior to that position, he served in a variety of posts in state public health agencies in the states of Mississippi, Hawaii, Texas and Louisiana. While in Louisiana, he served as the State Health Officer for three years. In Texas, he served as the Chief of the Bureau of Managed Care of the Texas Department of Health where he shared in the responsibility for converting Medicaid to managed care.

Dr. Baumgartner received his Medical Degree from Louisiana State University School of Medicine and his Masters of Public Health from Tulane University School of Public Health and Tropical Medicine. He completed a residency in general pediatrics at the University of Arkansas and completed a second residency in general preventive medicine at Tulane. He is board certified by the American Board of Preventive Medicine and by the American Board of Pediatrics