Improving Health in Alabama
Certified Public Manager® Program
CPM Solutions Alabama 2014
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Improving Health In Alabama
PROJECT MISSION STATEMENT

The Health in Alabama team’s objective is to research the health of Alabama’s citizens, compare Alabamians’ health to the health of citizens in other states, evaluate programs designed to reduce and prevent obesity, disease, and illness in other states, and develop strategies and interventions to raise awareness of these life limiting issues in order to improve the overall health of the citizens of Alabama.

OVERVIEW

A United States health care company, UnitedHealth Group, established a not-for-profit, private foundation in 1999 known as the United Health Foundation. The foundation describes itself as follows:

Guided by a passion to help people live healthier lives, United Health Foundation (UHF) provides helpful information to support decisions that lead to better health outcomes and healthier communities. The Foundation also supports activities that expand access to quality health care services for those in challenging circumstances and partners with others to improve the well-being of communities.¹

One of UHF’s key initiatives is an annual report, known as America’s Health Rankings, on the health of each state. Each state is analyzed based on a variety of health measures. The states are then ranked in each of the health measures and in the overall health of its citizens. According to the 2013 report, Alabama ranks number 47 out of 50 in the overall health of its citizens.² The State of Alabama has consistently ranked in the poorest performing 20% of all 50 states in the health of its citizens since the report was established in 1990.²

Alabama’s major health challenges include obesity, physical inactivity, diabetes, cardiovascular disease, and stroke. In Alabama’s population of 4.8 million people, almost 1.2 million adults in Alabama are obese, and more than 430,000 adults have diabetes. Although physical inactivity decreased in the past year from 32.6 percent to 27.2 percent of adults, there are still more than 960,000 physically inactive adults in the state.² Alabama is the 5th most obese state², with almost 67 percent of the population either overweight or obese.³

There are many factors that determine the rankings for each state. The team selected three factors on which to focus their research, analysis, and recommendations: 1) Public Health Funding, 2) Physical Inactivity and 3) Nutrition. It is the opinion of the team that successful strategies and interventions in these three areas have the potential to positively affect health

¹ http://www.unitedhealthfoundation.org/About Us/Default.aspx
³ http://media.alabama.gov/pr/pr.aspx?id=8281
measures outside of these three. For example, if more people were physically active then you would see improvement in the area of physical inactivity, and you should also see improvement in premature death, obesity, diabetes, stroke, heart disease, and possibly other areas.
ALABAMA HEALTH STATISTICS

OBESITY STATISTICS

Alabama is ranked 46th in obesity.\(^2\)

33% of Alabama adults are obese.\(^2\)

Nearly 1.2 million Alabamian adults are obese.\(^5\)

This figure does not include the 18.6% of Alabama’s children ages 10-17 that are obese.\(^6\)

Percentage of adults who are obese, with a body mass index (BMI) of 30.0 or higher\(^4\) (2011 BRFSS Methodology)

Note: The 2012–2013 data in the above graph are not directly comparable to prior years. There was a change in methodology. See Methodology on website for additional information.

\(^4\) http://www.americashealthrankings.org/measures/Measure/AL/Obesity (State View and National View)
\(^6\) http://www.fasinfat.org/states/al

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Alabama is ranked 42nd in physical inactivity.7

27.2% of adults in Alabama are physically inactive.2

This means there are more than 960,000 inactive adults in Alabama.2

Percentage of adults who report doing no physical activity or exercise (such as running, calisthenics, golf, gardening or walking) other than their regular job in the last 30 days7 (2012 BRFSS Methodology)

Note: The 2012–2013 data in the above graph are not directly comparable to prior years. There was a change in methodology. See Methodology on website for additional information.

7 http://www.americashealthrankings.org/measures/Measure/AL/Sedentary
DIABETES STATISTICS

Alabama is ranked 47th in diabetes.8
12.2% of adults in Alabama are diabetic, meaning more than 430,000 Alabamians have diabetes.2

Percentage of adults who responded yes to the question, "Have you ever been told by a doctor that you have diabetes?" (Does not include pre-diabetes or diabetes during pregnancy)8 (2011 BRFSS Methodology)

Note: The 2012–2013 data in the above graph is not directly comparable to prior years. There was a change in methodology. See Methodology on website for additional information.

8 http://www.americashealthrankings.org/measures/Measure/AL/Diabetes (State View and National View)
CARDIOVASCULAR DISEASE STATISTICS

Alabama is ranked 45th in cardiovascular disease.9

Heart disease is the leading cause of death in Alabama.10

On average 32.8 people die each day in Alabama from cardiovascular disease.10

Percentage of the adult population who were told by a health professional that they have angina or coronary heart disease9
(2011 BRFSS Methodology)

Note: The 2012–2013 data in the above graph is not directly comparable to prior years. There was a change in methodology. See Methodology on website for additional information.

9 http://www.americaswellbeing.org/measures/Measure/AL/CHD (State View and National View)
STROKE STATISTICS

Alabama is ranked 50th in strokes.11

4.6% of adults in Alabama have had a stroke.11

Strokes are the 4th leading cause of death in Alabama.10

Percentage of adults who have been told by a health professional that they had a stroke11
(2011 BRFSS Methodology)

Note: The 2012–2013 data in the above graph is not directly comparable to prior years. There was a change in methodology. See Methodology on website for additional information.

11 http://www.americashealthrankings.org/AL/Stroke/46 (State View and National View)
RESEARCH AND FINDINGS

The team gathered information from Alabama and states that were high performers in one of the three areas of research described in the overview section. States that are similar to Alabama geographically, economically, culturally, and in population were also selected for comparison.

Public Health Funding

Public Health Funding is one of the many measures used to establish the state’s overall health ranking. This measure includes funding from the Center for Disease Control (CDC), the U.S. Department of Health and Human Services – Health Resources and Services and Administration, and state appropriations. In 2013, the State of Alabama ranked 9th in public health funding per capita. Alabama reports public health funding of $118.73 per capita. The graph below shows the overall health ranking by state compared to the amount of public health funding per capita for each state.

![Public Health Funding Per Capita By State In Order of 2013 Overall Health Ranking](image)

The point could be made that, as a Southern state, cultural difference in diet and lifestyle in combination with lack of public funding contribute to the State’s overall poor health. However, the data from other Southern states does not support this claim. Tennessee funds public health at $84.94 per capita followed by Mississippi at $64.60, Florida at $60.42, and Georgia at

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12 [http://www.americashealthrankings.org/measures/Measure/AL/PH_Spending](http://www.americashealthrankings.org/measures/Measure/AL/PH_Spending)
13 [http://www.americashealthrankings.org](http://www.americashealthrankings.org)
14 [http://www.americashealthrankings.org/measures/Measure/TN/PH_Spending](http://www.americashealthrankings.org/measures/Measure/TN/PH_Spending)
Ironically, Florida and Georgia have better overall health rankings at 33rd $^{18}$ and 38th $^{19}$ respectively though they have the lowest funding. These statistics are shown in the following graph.

![Graph showing public health funding per capita for Alabama and neighboring states.](image)

**Public Health Funding Per Capita for Alabama and Neighboring States**

Some would argue that additional public health funding is needed to improve the overall health of Alabamians. As a state considered lacking in comparison to other states, this would seem to be a rational argument. However, the average of all fifty states’ public health funding in 2013 was $85.00 per capita. The states of Minnesota and Colorado are similar in population to that of Alabama. $^{20}$ In comparison, public health funding per capita in the state of Minnesota is $46.57. $^{21}$ Minnesota is currently ranked number three in overall health and has consistently ranked in the

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$^{15}$ http://www.americashealthrankings.org/measures/Measure/MS/PH_Spending
$^{16}$ http://www.americashealthrankings.org/measures/Measure/FL/PH_Spending
$^{17}$ http://www.americashealthrankings.org/measures/Measure/GA/PH_Spending
$^{18}$ http://www.americashealthrankings.org/FL
$^{19}$ http://www.americashealthrankings.org/GA
$^{20}$ http://www.census.gov/compendia/statatab/2012/tables/12s0014.xls
$^{21}$ http://www.americashealthrankings.org/measures/Measure/MN/PH_Spending

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top six since 1990.\textsuperscript{22} Currently ranked 8\textsuperscript{th}, Colorado has remained in the top 15 since 1990\textsuperscript{23} and public health funding is currently $83.98\textsuperscript{24}. Alabama funds about 40\% more per Alabamian than the average state, yet consistently ranks in the bottom 10\% of states in overall health.

There is a definite disconnect between existing funding and the health of the citizens of Alabama. According to the 2013 Annual Report from the Alabama Department of Public Health, the department received approximately 88\% of its funds from federal funding and reimbursement sources. The remaining 12\% of the public health funds that Alabama uses each year come from a combination of state and local funds.\textsuperscript{25} Often, the money coming into the State for public health is tied to specific requirements and programs that are beneficial to Alabamians. For example, the CDC funded over 50 million dollars for the vaccination of children in Alabama in 2013.\textsuperscript{26} This money could only be used by the State to provide no cost vaccines to children who might not have been vaccinated due to an inability to pay.\textsuperscript{27} Obviously, these funds and other similar funds are specific in the way they must be used resulting in limited flexible funds.

A study conducted by the Robert Wood Johnson Foundation (RWJF) shows little rationale in determining funding for public health in America. Federal funds are based on a formula which includes a mixture of population-based grant programs, disease incidence rates, and a series of competitive grants.\textsuperscript{28} In reference to flat federal funding since 2005 the study states:

> Because of federal funding limitations, many states submit competitive grants that are “approved and unfunded” due to limited funds. In most cases, there is no official strategy for targeting or coordinating these funds.\textsuperscript{28}

In reference to the results of the funding that is available, the report states:

> …federal public health programs, as currently structured, do not actively promote a set baseline, consistent capabilities that every community across the country should be able to achieve.\textsuperscript{28}

\textsuperscript{22}http://cdnfiles.americashealthrankings.org/SiteFiles/StateProfiles/Minnesota-Health-Profile-2013.pdf
\textsuperscript{23}http://cdnfiles.americashealthrankings.org/SiteFiles/StateProfiles/Colorado-Health-Profile-2013.pdf
\textsuperscript{24}http://www.americashealthrankings.org/measures/Measure/CO/PH_Spending
\textsuperscript{25}http://www.adph.org/publications/assets/2013annrpt.pdf
\textsuperscript{26}http://www.cdc.gov/vaccines/programs/vfc/about/index.html
\textsuperscript{27}http://www.rwjf.org/content/dam/farm/reports/reports/2014/rwjf413110
Also reported by RWJF in the February 2009 report for the Trust for America’s Health website, the United States spends more on medical care and other related health care costs than any other industrialized nation yet, they do not see a better return on the investment.\(^{29}\) In a 2008 report, the RWJF determined that an investment of $10 per person per year in proven community-based prevention programs could yield more than $2.8 billion in national health care cost savings the first two years of investing.\(^{29}\) The estimate goes up to over $16 billion annually after five years of investing.\(^{27}\) The study also stated that given the $10 per person per year investment, the State of Alabama had the potential to see a savings return on investment of $250 million within the first five years.\(^{30}\) This study and these findings alone should prompt us to reconsider how public health funds are being spent.

**Physical Inactivity**

Physical Inactivity, used by America’s Health Rankings to establish the state’s overall health ranking, is the second health measure researched. Inactive adults have a higher risk for early death, heart disease, stroke, type 2 diabetes, depression, and cancer. Physical inactivity is also a primary cause of weight gain and obesity. As stated in the Obesity Statistics section of this report, 33% of adults in Alabama are obese. That means nearly 1,167,000 adults in Alabama need to lose a significant amount of weight in order to be considered healthy. In addition, 18.6% of Alabama’s children ages 10-17 are obese.\(^{6}\) Given these statistics it is clear that physical inactivity is a problem for children and adults alike. The following is a map of the United States showing the top and bottom 25% of counties with diabetes, obesity, and physical inactivity.\(^{31}\)

\(^{29}\) [http://www.healthyamericans.org/reports/prevention08/Prevention08.pdf](http://www.healthyamericans.org/reports/prevention08/Prevention08.pdf)

\(^{30}\) [http://www.healthyamericans.org/reports/prevention08/](http://www.healthyamericans.org/reports/prevention08/)

\(^{31}\) [http://www.cdc.gov/features/dsphysicalinactivity/](http://www.cdc.gov/features/dsphysicalinactivity/)
Adults who are physically active are healthier and less likely to develop many chronic diseases than adults who are inactive. They also have better physical fitness, including a healthier body size and composition. Physical activity alone can increase energy level for daily activities, reduce the risk of illness and disease, relieve symptoms of depression and arthritis among other illnesses, and provide an overall feeling of health and well-being. These benefits are available to everyone, regardless of age, sex, race, or ethnicity.

In 150 minutes of moderate intensity, aerobic, physical activity a week, adults can gain most of these health benefits. That is only two hours and thirty minutes each week. Adults receive even more health and fitness benefits when they engage in additional physical activity. Muscle strengthening activities also provide health benefits and are an important part of an adult's

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overall physical activity plan.\textsuperscript{32} Below is a chart that displays the states with the highest and lowest obesity rates among adults.

### Data Snapshot\textsuperscript{33}

#### Highest Obesity Rate (2012)

<table>
<thead>
<tr>
<th>Rank</th>
<th>State</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Louisiana</td>
<td>34.7%</td>
</tr>
<tr>
<td>2</td>
<td>Mississippi</td>
<td>34.6%</td>
</tr>
<tr>
<td>3</td>
<td>Arkansas</td>
<td>34.5%</td>
</tr>
<tr>
<td>4</td>
<td>West Virginia</td>
<td>33.8%</td>
</tr>
<tr>
<td>5</td>
<td>Alabama</td>
<td>33.0%</td>
</tr>
<tr>
<td>6</td>
<td>Oklahoma</td>
<td>32.2%</td>
</tr>
<tr>
<td>7</td>
<td>South Carolina</td>
<td>31.6%</td>
</tr>
<tr>
<td>8</td>
<td>Indiana</td>
<td>31.4%</td>
</tr>
<tr>
<td>9</td>
<td>Kentucky</td>
<td>31.3%</td>
</tr>
<tr>
<td>10</td>
<td>Michigan</td>
<td>31.1%</td>
</tr>
</tbody>
</table>

#### Lowest Obesity Rate (2012)

<table>
<thead>
<tr>
<th>Rank</th>
<th>State</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>51</td>
<td>Colorado</td>
<td>20.5%</td>
</tr>
<tr>
<td>50</td>
<td>District of Columbia</td>
<td>21.9%</td>
</tr>
<tr>
<td>49</td>
<td>Massachusetts</td>
<td>22.9%</td>
</tr>
<tr>
<td>7</td>
<td>Hawaii</td>
<td>23.6%</td>
</tr>
<tr>
<td>47</td>
<td>New York</td>
<td>23.6%</td>
</tr>
<tr>
<td>46</td>
<td>Vermont</td>
<td>23.7%</td>
</tr>
<tr>
<td>44</td>
<td>Montana</td>
<td>24.3%</td>
</tr>
<tr>
<td>42</td>
<td>Utah</td>
<td>24.3%</td>
</tr>
<tr>
<td>42</td>
<td>New Jersey</td>
<td>24.6%</td>
</tr>
<tr>
<td>42</td>
<td>Wyoming</td>
<td>24.6%</td>
</tr>
</tbody>
</table>

Colorado has been known for being one of the leanest states in the nation. Be Colorado, a health care model formed by the University of Colorado and its affiliate partners, University of Colorado Health and University Physician, Inc., has implemented and partnered with other agencies to promote various programs that aid in enhancing their overall wellness. One program is the Bike to Work Day. Colorado celebrates Bike to Work Day on the fourth Wednesday in June every year and the entire month of June is designated Colorado Bike Month. In 2013, 869 companies across the region registered for Bike to Work Day and competed in the Business Challenge.\textsuperscript{34} This friendly challenge is comprised of organizations that compete to see who can

\textsuperscript{33}http://fasinfat.org/adult-obesity/  
\textsuperscript{34}http://biketowork2014.org/content/company-coordinator-toolkit
register and get the most participation from their workforce to join in on the Bike to Work day festivities. As an incentive, prizes such as bikes, bike racks, helmets and various gift certificates are awarded to the winners.

Colorado Get Movin’ Challenge, which is sponsored by Kaiser Permanente, encourages Coloradans to engage in 30 minutes of physical activity for 30 days while tracking their progress with a free MapMyFitness account. To get as many communities involved as possible a friendly competition between the cities and towns across the state offers a chance to win the title of “The Most Active Colorado City”35 Colorado has made it a community effort to do what they can to help the adults combat the nationally trending and rising rates of obesity.

With Minnesota ranking 3rd in overall health, its Statewide Health Improvement Program, or SHIP was implemented in 2008 to help guide Minnesotans to live a longer and healthier life. Their strategies represent the best evidence from across the nation, and are proven to be both effective and long-term. Examples include:

- Working with schools to encourage “Safe Routes to School” programs, so that kids arrive to school focused and ready to learn, and “Farm to School” programs, so that kids get healthy Minnesota produce and learn where their food comes from, all while benefiting local farmers.

- Supporting employers in offering comprehensive workplace wellness programs which have been estimated to return to the employers from three to six dollars for every dollar spent on workplace wellness programs.

- Working with communities to encourage biking and walking, including “Complete Streets” with sidewalks and crosswalks, all designed to make it easier for people of all ages to get the physical activity they need.

- Better access to healthy fruits and vegetables in corner stores in cities and convenience stores in greater Minnesota, and through more farmers markets, especially those accepting Electronic Benefit Transfer, so that more people can get the healthy food their families need.36

Physical inactivity among children is declining. Today’s children are victims of the evolving world of technology which has diminished the importance of being physically active. Children are spending longer amounts of time using computers, televisions, smart phones and game consoles. They are spending less time involved in daily physical play. As a result, we are seeing more children suffer from obesity, diabetes and other chronic diseases.

36 http://www.health.state.mn.us/divs/oshii/ship/docs/celebratinghealthy.pdf

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The least obese states include, Minnesota and Rhode Island which tied for 13th in obesity\(^{22,37}\), New Jersey ranked 8th in obesity\(^{38}\) and New York ranked 3rd in obesity\(^{39}\). Physical activity with an emphasis on school age children was researched in these high performing states in order to compare them with Alabama.

The physical education requirements for each of the states, including Alabama are in the following chart.

<table>
<thead>
<tr>
<th>State</th>
<th>Grade Level</th>
<th>State Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama(^{40})</td>
<td>Kindergarten – 8(^{th})</td>
<td>30 minutes a day</td>
</tr>
<tr>
<td></td>
<td>9(^{th}) – 12(^{th})</td>
<td>2 semesters in the 4 year period</td>
</tr>
<tr>
<td>Minnesota(^{41})</td>
<td>Kindergarten – 12(^{th})</td>
<td>Mandated but not required</td>
</tr>
<tr>
<td>New Jersey(^{42})</td>
<td>1(^{st}) – 12(^{th})</td>
<td>150 minutes per week*</td>
</tr>
<tr>
<td>New York(^{43})</td>
<td>Kindergarten – 12(^{th})</td>
<td>120 minutes per week</td>
</tr>
<tr>
<td>Rhode Island(^{44})</td>
<td>1(^{st}) – 12(^{th})</td>
<td>100 minutes per week*</td>
</tr>
</tbody>
</table>

Alabama children in Kindergarten through the 8th grade are required to take a minimum of 30 minutes of physical education per day. During the 9th through 12th grade years, students are required to take one year (or two semesters) of physical education.\(^ {40}\) Compare this to the State of Minnesota where the standard mandates physical education, but the state does not specify the amount of time.\(^ {41}\) New Jersey requires that grades 1st through 12th have at least 150 minutes of health, physical education, and safety per week.\(^ {42}\) In New York 120 minutes of physical education per week is required at all grade levels.\(^ {43}\) Similarly, Rhode Island requires 100 minutes per week of health and physical education every year at all grade levels.\(^ {44}\) The Center for Disease Control (CDC) reports that in Alabama 50% of high school students do not attend physical education classes one or more days in an average week.\(^ {45}\) The CDC also reports that in

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\(^{37}\) [http://cdnfiles.americashealthrankings.org/SiteFiles/StateProfiles/RhodeIsland-Health-Profile-2013.pdf](http://cdnfiles.americashealthrankings.org/SiteFiles/StateProfiles/RhodeIsland-Health-Profile-2013.pdf)

\(^{38}\) [http://cdnfiles.americashealthrankings.org/SiteFiles/StateProfiles/NewJersey-Health-Profile-2013.pdf](http://cdnfiles.americashealthrankings.org/SiteFiles/StateProfiles/NewJersey-Health-Profile-2013.pdf)


\(^{40}\) [https://web.alsde.edu/docs/documents/54/1%202009%20Physical%20Education%20Course%20of%20Study.pdf](https://web.alsde.edu/docs/documents/54/1%202009%20Physical%20Education%20Course%20of%20Study.pdf)


\(^{42}\) [http://www.state.nj.us/education/aps/cccs/chpe/regs.htm](http://www.state.nj.us/education/aps/cccs/chpe/regs.htm)


\(^{44}\) [http://www.ride.ri.gov/InstructionAssessment/OtherSubjects.aspx](http://www.ride.ri.gov/InstructionAssessment/OtherSubjects.aspx)

Alabama 64.3% of high school students do not attend physical education classes all five days in an average week.\textsuperscript{46}

It is a surprising fact that Alabama has not cut back on physical education requirements for school-aged children given budget cutbacks and the demand for classroom instruction time in other subject areas. However, the State has not taken measures to extend the daily physical education standards through the 12\textsuperscript{th} grade. Alabama is following the same standards for physical education in schools as it has for the past 35 years.\textsuperscript{47} Although the opportunity exists for additional physical education, 9\textsuperscript{th} through 12\textsuperscript{th} graders can choose additional semesters of physical education as an elective, “Increasing academic demands in Alabama have limited time for physical education in high school”.\textsuperscript{47} Therefore, most Alabama high school students will not have enough time to fit physical education into their schedule beyond the required two semesters.

In effect, physical education is taking a backseat to the higher priority academic demands in Alabama schools though there is evidence of a positive relationship between regular physical activity and improved brain activity that affects academic performance, including learning, memory, concentration, and mood. According to Rhode Island researchers, “Studies demonstrate that higher fit children display higher levels of cognitive control, better task performance, faster reaction times, enhanced working memory, and attention.”\textsuperscript{48} The benefits of enhancing physical education and school-based physical activities on academic tasks are shown Figure 1.\textsuperscript{48}

\textsuperscript{48}http://nnphi.org/CMSuploads/EnhancingPhysicalEducationInIllinois_HowInvestingInPEYieldsHigherAchievers.pdf

Improving Health In Alabama
Nutrition

Nutrition is the third health measure the team researched. It should be noted that America’s Health Rankings does not list nutrition as a single health measure as such. Instead, America’s Health Rankings lists fruits and vegetables as two separate health measures. These will be combined for the purposes of this research and will be collectively referred to as nutrition.

Eating a balanced diet is one of the most important behaviors for improving one’s overall health. It is important to eat a wide variety of foods including all kinds of fruits and vegetables, because each nutrient in foods plays a different role in keeping one healthy. Poor eating habits that result in too many calories and not enough nutrients increase the risk of chronic disease and disability.

The State of Alabama already has many programs in place that are designed to make fresh fruits, vegetables, and other nutritious foods convenient and accessible to the citizens of the state. Many of these programs also have an element of education included in order to expose Alabamians to uncommon fruits and vegetables and teach them to prepare all foods in a healthy way.

Alabama public schools participate in the National School Lunch Program (NSLP), the School Breakfast Program, and the Afterschool Snack Program. All three programs are federally assisted meal programs administered by the Alabama Department of Education where by schools are reimbursed for providing free or reduced-price breakfast, lunch, and snack, meeting United States Department of Agriculture nutrition requirements, to eligible children.49,50,51 In 2010, over

36 million breakfasts and over 97 million lunches, nutritionally balanced and low cost, were served in Alabama with over 748,889 children enrolled. Currently, 1,518 public schools, 20 private schools, and 42 residential care facilities participate in the NSLP in Alabama.52

As a part of these program requirements, all school meals must follow meal patterns and nutrition standards as set forth in the latest Dietary Guidelines for Americans.49, 50 More fruits, vegetables, and whole grains are being offered on the school menu. Specific caloric maximums are set for grades K-5, 6-8, and 9-12.49, 50 There is also a significant push to reduce the sodium levels in school meals.49, 50 Local Child Nutrition Directors and School Lunchroom Managers are free to choose the specific foods they wish to offer and how it will prepared. However, all food items must meet the federal requirements to qualify for the federal program reimbursements.

As part of the research on nutrition and the programs available in schools, the team went to Pine Level Elementary School in Deatsville, Alabama, to talk to the students about nutrition and to get their thoughts on the meals they eat at school and at home. We spoke to a kindergarten class as well as a third grade class and asked them questions to see if they knew which foods are healthy and which foods are not healthy or should be limited. We also asked questions about their eating habits at school and at home. In both classes, it was apparent that the students knew which foods were healthy and unhealthy. Some students also commented on the fact that their families would not cook supper at home very often. These families ate out several times a week. There were also some students who reported that they very rarely eat out. During our visit, we went to the lunchroom and were able to see some of the foods that were served at lunch that day. The students who typically ate meals prepared by the lunchroom reported that the food was sometimes good and sometimes bad depending on what was being served. All of the students were enthusiastic about wishing that certain fruits, like watermelon, were available more often in the lunchroom. A typical menu is shown below.
Minnesota, ranked 3rd in overall health, realizes that people need access to fresh fruits and vegetables, and the Minnesota Department of Health is working to increase access to fresh fruits and vegetables through the Statewide Health Improvement Program, Fresh Fruit and Vegetable Program, and the Farm to School Program.

The Minnesota Department of Health has implemented the Statewide Health Improvement Program (SHIP) that works to improve health through better nutrition and increased physical activity. Since the implementation of SHIP in 2009, over 72,000 students have made dramatic changes in consuming healthy food and decreasing unhealthy food consumption. In one Minnesota district it is estimated that there has been a 25 percent increase in fruits and vegetables sold to students, and there has been an increase in breakfast and lunch participation of 30 percent.

The Minnesota Department of Education's Food and Nutrition Service administers the Fresh Fruit and Vegetable Program through a federal grant. This program allows participating elementary schools to offer their students a variety of fresh fruit and vegetable snacks during the school day at no cost. As is true for the United States as a whole, the percentage of children who are overweight or obese is on the rise in Minnesota. It is also true that healthy eating habits and physical activity habits develop at a young age and tend to carry over into adulthood. Minnesota’s Department of Education believes that the Fresh Fruit and Vegetable Program is an effective and creative way to introduce fresh fruits and vegetables as healthy snack options at an early age so that good habits will be taken into adulthood. Participation priority is given to

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http://www.health.state.mn.us/divs/oshii/ship/index.html
http://education.state.mn.us/MDE/Schsup/FNS/SNP/FreshFruitVegProg/index.html
those schools that have the highest percentage of students receiving free or reduced-price meals.\textsuperscript{54}

In its third year of participation, Dover-Eyota Public School is just one of the over 350 Minnesota schools that has implemented a Farm to School Program.\textsuperscript{55,56} The Farm to School Program is an effort to bring locally produced foods into schools. This program is a United States Department of Agriculture project and is used by many schools nationwide to provide healthy school meals.\textsuperscript{57} Farm to School Programs are created according to the needs of the school, but they include one or more of the following:

- **Procurement:** Local foods are purchased, promoted, and served in the cafeteria or as a snack or taste-test.
- **Education:** Students participate in education activities related to agriculture, food, health, or nutrition.
- **School gardens:** Students engage in hands-on learning through gardening.\textsuperscript{58}

Carrie Frank, Food and Nutrition Director for Dover-Eyota schools stated, “I’ve found we shouldn’t underestimate the kids. They know good food. If healthy options are offered, they’re going to [choose] them.”\textsuperscript{55} The Farm to School program benefits not only the students and teachers eating school meals, but local food producers have ready buyers and communities see their economy stimulated and their citizens living healthier lives.\textsuperscript{58}

Alabama currently spends only $1,137,514 on school produce locally grown by surrounding farmers. This is only 3% of the total budget spent on school food in Alabama in 2013 ($34,444,617). This 3% of total spending on locally grown produce is well below the national average of 11%. Edible gardens are in 32% of Alabama’s schools. This is above the national average of 31%.\textsuperscript{59}

Access to fresh and healthy foods is important when trying to establish good nutrition habits. Another program that Alabama has in place to provide access to these foods across the state is the Farmers Market Nutrition Program. This program is designed to provide seniors and nutritionally at risk women and children the opportunity to buy fresh, nutritious, unprepared, locally grown fruits, vegetables, and herbs directly from farmers at farmers markets, roadside stands, and community supported agriculture programs.\textsuperscript{60} Participants are also given nutrition information in an effort to expand their knowledge of nutrition. Not only does this program offer nutritional benefit to these three groups of people, but it also offers opportunity to expand

\textsuperscript{54} http://makingitbettermn.org/making-it-better/stories/a-fresh-take-on-learning/  
\textsuperscript{55} http://www.health.state.mn.us/divs/hpcd/chp/cdrr/nutrition/FTS/stories.html  
\textsuperscript{56} http://fns.usda.gov/farmtoschool/farm-school  
\textsuperscript{57} http://farmtoschool.org/about/what-is-farm-to-school  
\textsuperscript{58} http://www.fns.usda.gov/farmtoschool/census#state/al  
\textsuperscript{59} http://www.fma.alabama.gov/Nutrition.aspx
consumption of these foods and in turn there will be more demand for more farmers markets, roadside stands and community supported agriculture programs that will increase access to fresh and healthy foods. The team made a site visit to the Montgomery Farmer’s Market to view firsthand the variety, degree of and freshness of the fruits and vegetables sold there.

Farmer’s Market in Montgomery, Alabama

Alabama is a high poverty state with a disproportionate number of food assistance recipients suffering from health-related problems.\(^{61}\) Many of these health problems have links to poor dietary habits and physical inactivity. In an effort to combat this, Alabama participates in The Federal Supplemental Nutrition Assistance Program Education (SNAP-Ed) that is administered by the Alabama Department of Human Resources, Food Assistance Division. The SNAP-Ed’s goal is to improve the likelihood that people eligible for SNAP, government food assistance available to low-income families, will make healthy food choices within a limited budget and choose physically active lifestyles consistent with the current Dietary Guidelines for Americans and the USDA food guidance.\(^{61}\) Emphasis is placed on educating SNAP recipients on nutrient dense fruits, vegetables, grains, and milk, adequate physical activity, and caloric balance and the health benefits of putting the education into action.

Colorado is a high performing state when it comes to nutrition. The state’s overall health was ranked 8\(^{th}\)\(^{23}\) in 2013 and the state population is similar to that of Alabama.\(^{20}\) Colorado chose to look outside of the typical government agencies and programs as one of the ways they would pursue better health in the state. A partnership was formed between the Colorado Department of Public Health and Environment with LiveWell Colorado, an independent, nonprofit organization that is working to promote healthy eating and active lifestyles for every Coloradan.\(^{62}\) In order to accomplish their mission to “Inspire and advance policy, environmental and lifestyle changes

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\(^{61}\) http://www.aces.edu/family-health/health-nutrition/nep/

\(^{62}\) http://livewellcolorado.org/livewells-commitment/about-livewell
that promote health through the prevention and reduction of obesity”, LiveWell Colorado developed a strategic plan that was to be carried out over five years. Three priority goals were established:

• Funding community coalitions throughout the state focused on healthy eating and active living strategies.

• Informing and advancing multi-sector policy efforts with key stakeholders at the local, state and national levels.

• Leading social marketing initiatives that inspire a culture shift and motivate sustainable healthy behavior changes.

As of 2012, LiveWell Colorado has taken the statewide movement to the local level by providing the funding to start local LiveWell Colorado programs in 31 communities. Investing in these communities has taken the message of the larger movement to a more personal and individualized message in specific communities. Each year LiveWell Colorado looks to add more communities to this list. The Go, Slow, Whoa program was implemented in 28 Colorado schools. This program helps children learn to identify and choose healthy foods. As stated in the strategic plan, “All efforts are grounded by the underlying goals of reducing health disparities, building synergy and reducing duplication of efforts among organizations, supporting promising practices and ensuring accountability through rigorous evaluation”.

As Colorado has shown, there are avenues other than the government through which change can be made. Many states, including Alabama, have Community Supported Agriculture (CSA) programs available. CSAs allow for a group of individuals to pay a farmer for a share of the harvest. The consumers pay for their share in the harvest and this provides the farmer the means by which to run the farm. Once the farmer begins harvesting, the consumer receives a portion of the produce. Both the farmer and the consumer share the risks and benefits of food production. Through direct sales to community members, who have provided the farmer with working capital in advance, growers receive better prices for their crops, gain some financial security, and are not required to market their goods as they would otherwise. Consumers have fresh food that has not lost the nutrients as is common with store bought foods that have been in transport and storage.

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65 http://catchusa.org/programs.html
66 http://fma.alabama.gov/CSA.aspx
Recommendations

Based on the research and findings of the team, Alabama is not receiving a return on its investment in health. Going forward, it is vital that our state’s leaders closely examine each initiative to determine its benefit to the citizens of Alabama.

Alabama should consider introducing the following initiatives to improve the health in Alabama:

- The Alabama Department of Public Health (ADPH) should consider partnerships with the Alabama Department of Agriculture and the Alabama Department of Education (ALSDE) to encourage the expansion of the Farm to School program, which supplies school cafeterias with fresh fruits and vegetables to serve to students. Minnesota has proven that it’s a program that is working for their state.
- ADPH should partner with ALSDE to track nutrition and fitness levels of students beginning in Kindergarten through the 12th grade following implementation of proven healthy eating and physical activity programs. Measurable goals should be established so that the effectiveness of a program can be monitored. Programs that are not effective should be eliminated, and programs that are effective should be prioritized by the level of effectiveness.
- It is recommended that ADPH partner with county, city, and community organizations to introduce strategies that encourage wellness related activities (exercise and fitness activities, wellness screenings and seminars, community gardens, and farmers’ co-ops).
- Introduce guidelines for daycare facilities to address healthy foods and physical activity as early as infancy.
- It is increasingly important throughout Alabama that cities and communities, residential and commercial, make bicycle and walking paths a part of all new developments.
- ADPH should take an in-depth and knowledgeable account of all programs offered to the citizens of Alabama and work to create a simplified and logical approach to administering the programs and services. There appears to be a lot of overlap and little communication between the overlapping programs and services. For example, the administration of multiple programs geared toward children could be combined to lower overall administrative costs and maintain, if not increase, the effectiveness of the programs and services offered. This might free more funding to be used to expand programs and improve the health of Alabamians without the need for additional funding.
Conclusion

The State of Alabama has an opportunity to change the lives of every unhealthy and inactive individual within its borders. Through an intentional and cooperative effort to use state resources as efficiently and effectively as possible, agencies within the state can positively affect the overall health of Alabamians without additional funding and potentially less funding. Proven and effective programs focused on nutrition and physical activities are of utmost importance if the State wants to change its dominance as one of the nation’s unhealthiest states. Health conditions such as obesity, heart attack, stroke, diabetes, and cancer will all see improvement if adopting healthier lifestyles through nutrition and physical activity are taken to heart by the citizens and leaders of this state.