WE ARE what we build
“We shape our dwellings, and afterwards our dwellings shape us.”

—Sir Winston Churchill, 1944
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The mission of the Pennington Biomedical Research Center is to discover the triggers of chronic diseases through innovative research that improves human health across the lifespan.
95% of Louisiana parents think it is very important that children are physically active.
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GOAL OF THE REPORT CARD

The primary goal of the Report Card is to assess the level of physical activity and sedentary behaviors in Louisiana’s children and youth, the level of facilitators and barriers for physical activity, and their related health outcomes. The Report Card is an authoritative, evidence-based document providing a comprehensive evaluation of the physical activity levels and the indicators influencing physical activity among children and youth in Louisiana. The Report Card takes an "ecological approach" to the problem of physical inactivity among Louisiana’s children and youth, recognizing many influences in which our kids live such as their family, school, community, and policy environments can affect their physical activity and other health behaviors. The categories and indicators in the Report Card correspond to these environmental influences on physical activity behaviors. Through this effort, we are able to track these behaviors and their influences over time and show progress, deficiencies, and inequities for each indicator.

The Report Card is a resource for health statistics on children and youth in Louisiana, but most importantly, it is an advocacy tool providing a level of accountability and call-to-action for adult decision makers on how we, as parents, teachers, medical professionals, and community leaders, can help implement new initiatives, programs, and policies in support of healthy environments to improve the physical activity levels and health of our children. The annual Report Card findings galvanize researchers and the community across Louisiana to improve our children’s physical activity opportunities and health.

2012 STRATEGY

This year the Report Card presents the grades for each indicator as determined by the Research Advisory Committee. An exciting new addition presented in this year’s report is data from our Physical Activity and Nutrition Guidelines Knowledge survey. The survey was developed by the Research Advisory Committee and implemented by the Louisiana State University Public Policy Research Lab. It includes information from approximately 750 parents from around the state of Louisiana. The survey asks questions related to parent’s perception of childhood obesity in Louisiana and also their knowledge of guidelines for children related to physical activity, fruit and vegetable consumption, and screen time. Throughout the Report Card, the survey results are displayed within these icons.
MAKING THE GRADE

The grades for the 2012 Report Card were assigned by the Research Advisory Committee using the most recent and accurate data available with consideration of recent published scientific literature and reports. The following table presents a general rubric for assigning grades based on indicators of physical activity. These definitions were modified based on other indicators in the Report Card.

<table>
<thead>
<tr>
<th>GRADES</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Louisiana’s children and youth are physically active and achieving optimal health.</td>
</tr>
<tr>
<td>B</td>
<td>Majority of Louisiana’s children and youth are physically active and achieving optimal health; however, children who are obese, underserved, and physically or mentally challenged may not have appropriate physical activity opportunities provided.</td>
</tr>
<tr>
<td>C</td>
<td>Insufficient appropriate physical activity opportunities and programs available to large segments of Louisiana’s children and youth.</td>
</tr>
<tr>
<td>D</td>
<td>Insufficient appropriate physical activity opportunities and programs available to the majority of Louisiana’s children and youth.</td>
</tr>
<tr>
<td>F</td>
<td>Louisiana’s children and youth have a sedentary lifestyle with insufficient opportunities for physical activity.</td>
</tr>
<tr>
<td>INC</td>
<td>Incomplete. At the present time there is not enough information available for grading.</td>
</tr>
</tbody>
</table>

LOUISIANA’S OVERALL GRADE 2012: D
What is the Built Environment & Why is it Important?

The term “built environment” refers to human-made features of the community built to facilitate daily life, including everyday things such as streets, shops, restaurants, and parks. Many community and neighborhood features impact our children’s health. For example, neighborhood access to parks, playgrounds, and sidewalks are all associated with higher levels of physical activity among children. These are only several examples of the many pieces of the built environment influencing physical activity levels of our children and youth.

Throughout the Report Card, evidence is presented on how different aspects of the built environment can impact physical activity and the other indicators.

The National Survey of Children’s Health\(^1\) assesses a neighborhood’s propensity for encouraging good health among its children using 4 comprehensive indicators:

1. **Neighborhood Amenities**: percent of children who live in neighborhoods with a park, sidewalks, a library, and a community center\(^1\)

2. **Neighborhood Conditions**: percent of children who live in neighborhoods with poorly kept or dilapidated housing\(^1\)

3. **Supportive Neighborhoods**: percent of children living in supportive neighborhoods\(^1\)

4. **Safety of Child in Neighborhood**: percent of children living in neighborhoods that are usually or always safe\(^1\)

*Louisiana ranks worse than the NATIONAL AVERAGE in all 4 of these categories.*
### Summary of Report Card Indicators and Grades

<table>
<thead>
<tr>
<th>Categories /Goals &amp; Indicators</th>
<th>Topics or Subgroups</th>
<th>Data source*</th>
<th>Percentage</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical Activity/Inactivity: Goal = Improve health, fitness and quality of life through daily physical activity.</strong></td>
<td>Aerobic Physical Activity in grades 9-12</td>
<td>2011 LA YRBS</td>
<td>24.2%</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>Vigorous Physical Activity in children 6-17 years</td>
<td>2007 NSCH</td>
<td>34.0%</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>Muscle-Strengthening Activity in grades 9-12</td>
<td>2011 LA YRBS</td>
<td>40.8%</td>
<td>D</td>
</tr>
<tr>
<td><strong>Screen Time</strong></td>
<td>TV/videos in grades 9-12</td>
<td>2011 LA YRBS</td>
<td>41.1%</td>
<td>D-</td>
</tr>
<tr>
<td></td>
<td>Computer/Computer games in grades 9-12</td>
<td>2011 LA YRBS</td>
<td>34.5%</td>
<td>D</td>
</tr>
<tr>
<td><strong>Sports Participation</strong></td>
<td>Children and adolescents aged 6-17 years</td>
<td>2007 NSCH</td>
<td>51.6%</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Adolescents in grades 9-12</td>
<td>2011 LA YRBS</td>
<td>51.3%</td>
<td>C</td>
</tr>
<tr>
<td><strong>Health &amp; Health Behaviors: Goal = Promote health and well-being of children and adolescents and reduce chronic disease risk by increasing physical activity and other healthful behaviors.</strong></td>
<td>Children aged 2 to 5 years</td>
<td>2010 PedNSS</td>
<td>12.9%</td>
<td>F</td>
</tr>
<tr>
<td><strong>Overweight &amp; Obesity</strong></td>
<td>Children aged 10 to 17 years</td>
<td>2007 NSCH</td>
<td>20.7%</td>
<td>C-</td>
</tr>
<tr>
<td></td>
<td>Adolescents in grades 9-12</td>
<td>2011 LA YRBS</td>
<td>16.1%</td>
<td>C-</td>
</tr>
<tr>
<td></td>
<td>Children and adolescents 2 to 19 years</td>
<td>2010-2011 LA SBHC</td>
<td>27.1%</td>
<td>D-</td>
</tr>
<tr>
<td><strong>Aerobic Fitness</strong></td>
<td>Adolescents aged 10-18 years</td>
<td>2011-2012 HRPfA</td>
<td>43.8%</td>
<td>C</td>
</tr>
<tr>
<td><strong>Overall Physical &amp; Emotional Well-Being</strong></td>
<td>Adolescents in grades 9-12</td>
<td>2011 LA YRBS</td>
<td>10.6%</td>
<td>C-</td>
</tr>
<tr>
<td><strong>Fruit &amp; Vegetable Consumption</strong></td>
<td>Fruits ≥ 4 times per day in grades 9-12</td>
<td>2011 LA YRBS</td>
<td>5.9%</td>
<td>D-</td>
</tr>
<tr>
<td></td>
<td>Vegetables ≥ 3 times per day in grades 9-12</td>
<td>2011 LA YRBS</td>
<td>11.7%</td>
<td>D-</td>
</tr>
<tr>
<td><strong>Tobacco Use</strong></td>
<td>Tobacco products in grades 6-12</td>
<td>2011 LYTS</td>
<td>27.4%</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Cigarettes in grades 6-12</td>
<td>2011 LYTS</td>
<td>16.2%</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Smokeless tobacco products in grades 6-12</td>
<td>2011 LYTS</td>
<td>8.4%</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Cigars in grades 6-12</td>
<td>2011 LYTS</td>
<td>11.0%</td>
<td>C</td>
</tr>
<tr>
<td><strong>Family: Goal = Increase the awareness of the benefits of physical activity for all individuals, and improve family support for achieving adequate levels of physical activity.</strong></td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>INC</td>
</tr>
<tr>
<td><strong>Family Perceptions &amp; Roles Regarding Physical Activity</strong></td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>INC</td>
</tr>
<tr>
<td><strong>School &amp; Community: Goal = Promote school and neighborhood environments that provide and increase opportunities for physical activity throughout the day inclusive of all children.</strong></td>
<td>Adolescents in grades 9-12</td>
<td>2011 LA YRBS</td>
<td>42.5%</td>
<td>D</td>
</tr>
<tr>
<td><strong>Physical Activity Programming at School</strong></td>
<td>Middle and high school public school teachers</td>
<td>SHPPS</td>
<td>...**</td>
<td>C</td>
</tr>
<tr>
<td><strong>Training of School Personnel in Physical Activity</strong></td>
<td>Sidewalks or walking paths for 0-17 year olds</td>
<td>2007 NSCH</td>
<td>62.0%</td>
<td>D</td>
</tr>
<tr>
<td><strong>Built Environment &amp; Community Design</strong></td>
<td>Parks or playgrounds for 0-17 year olds</td>
<td>2007 NSCH</td>
<td>65.6%</td>
<td>D</td>
</tr>
</tbody>
</table>

*See 2012 Report Card Development and Data Sources for an explanation of the data sources.
**Grade based on qualitative data presented in the Report Card.
PHYSICAL ACTIVITY

Percentage of Louisiana children and adolescents meeting the federal guidelines for aerobic physical activity, vigorous physical activity, and muscle-strengthening activity.

**GUIDELINES:**

60 minutes of physical activity every day including 20 minutes of vigorous physical activity as well as 3 days per week of muscle-and bone-strengthening activities.

**Figure #3:** The percent of students who traveled to school by active transportation:

50% in 1969 decreased to 13% in 2011

The journey to and from school provides an opportunity to put physical activity back into the daily routine of many children and adolescents...

The majority of children and youth travel to school by passive transportation, i.e., by car or school bus. An estimated 50 percent of U.S. students traveled to school by active transportation in 1969 compared to only 13% of students in 2009. Many characteristics of the built environment may have led to this decline in children walking or biking to school. Children living in neighborhoods with high crime rates, longer distances from home to school due to the switch from many smaller neighborhood schools to fewer very large schools, and a lack of sidewalks, bike lanes, and safe intersections to cross streets are less likely to engage in an active transportation method to get to school.

Encouraging children to use active transportation, i.e., walking, biking, or skate-boarding to school, not only increases moderate-to-vigorous physical activity (MVPA) levels but decreases sedentary time spent riding in an automobile. Students who walk to and from school are more physically active and have higher moderate-to-vigorous physical activity levels compared to students who typically travel to school by car, bus, or train.

---

**Figure #1:** Percentage of Students who Met Physical Activity Recommendations (2011)

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerobic Physical Activity</td>
<td>2011 LA YRBS</td>
</tr>
<tr>
<td>Vigorous Physical Activity</td>
<td>2007 NSCH</td>
</tr>
<tr>
<td>Muscle-Strengthening Activity</td>
<td>2011 LA YRBS</td>
</tr>
</tbody>
</table>

**Figure #2:** Percentage of Students who Met Recommendations for Muscle-Strengthening Activities (2011)

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>40.8%</td>
</tr>
<tr>
<td>Male</td>
<td>55.1%</td>
</tr>
<tr>
<td>Female</td>
<td>27.2%</td>
</tr>
<tr>
<td>Grade 9</td>
<td>37.6%</td>
</tr>
<tr>
<td>Grade 10</td>
<td>45.8%</td>
</tr>
<tr>
<td>Grade 11</td>
<td>42.6%</td>
</tr>
<tr>
<td>White</td>
<td>39.9%</td>
</tr>
<tr>
<td>African American</td>
<td>39.8%</td>
</tr>
</tbody>
</table>

Source: Centers for Disease Control and Prevention (CDC), Louisiana Department of Education, Division of Student and School Learning, Health and Wellness Services. 2011 Youth Risk Behavior Survey (YRBS)

Note: Grade 12 is not displayed as an adequate sample size was not met.
One study performed in 6 states, including Louisiana, found that compared to students traveling to school by automobile, middle-school aged girls who walked to and from school engaged in 13.7 more minutes of physical activity and 4.7 more minutes of MVPA per day. Safe Routes to School is a federal program that aims to tackle these issues by making active transportation to school a safer choice through initiatives encouraging students and their parents to walk or bike to school or projects that build safer street crossings and sidewalks. One city in California saw a 38% increase in the number of children traveling to school by active transportation after implementing a Safe Routes to School program sidewalk system. From 2007-2011, over 70 Safe Routes to School projects were funded in parishes throughout Louisiana. Funded projects focused on community education on bike and pedestrian safety and building sidewalks, crossings, and walking tracks. Only 19% of Louisiana parents have heard of the 2008 Physical Activity Guidelines for Americans.
The proportion of Louisiana adolescents exceeding the recommended screen time limits for TV/videos and computer/computer games.

**Data Source Percentage**

<table>
<thead>
<tr>
<th></th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV/ Videos</td>
<td>41.1%</td>
</tr>
<tr>
<td>Computer/ Computer Games</td>
<td>34.5%</td>
</tr>
</tbody>
</table>

**Figure #4: Percentage of Students who Exceeded Screen Time Limits for TV (2011)**

- **Total**: 41.1%
- **Male**: 37.7%
- **Female**: 44.6%
- **Grade 9**: 46.4%
- **Grade 10**: 38.5%
- **Grade 11**: 34.0%
- **White**: 29.8%
- **African American**: 58.2%

Source: Centers for Disease Control and Prevention (CDC), Louisiana Department of Education, Division of Student and School Learning Support, Health and Wellness Services. 2011 Youth Risk Behavior Survey (YRBS). Grade 12 is not displayed as an adequate sample size was not met.

One study found Canadian children who live in areas with access to playgrounds, parks, sidewalks, and recreation facilities are more likely to limit their total screen time to the recommended 2 hours per day compared to children living in neighborhoods without these amenities. The children who live in areas with these conveniences were also more likely to be physically active and engage in active transport to and from school.

Another study found that perceived neighborhood safety was significantly associated with the time children spend watching television. Children whose mothers perceived their neighborhoods as unsafe watched approximately 20 more minutes of television per day compared to children living in neighborhoods perceived as safer.

**Figure #5: Percentage of Students who Exceeded Screen Time Limits for Computers/Computer Games (2011)**

- **Total**: 34.5%
- **Male**: 34.3%
- **Female**: 35.0%
- **Grade 9**: 40.0%
- **Grade 10**: 29.4%
- **Grade 11**: 29.8%
- **White**: 28.5%
- **African American**: 41.3%

Source: Centers for Disease Control and Prevention (CDC), Louisiana Department of Education, Division of Student and School Learning Support, Health and Wellness Services. 2011 Youth Risk Behavior Survey (YRBS). Grade 12 is not displayed as an adequate sample size was not met.

**Figure #6: Minutes per day children spent viewing TV in areas of high (safest), medium, and low (least safe) perceived safety.**
Children ages 2+ should limit television and video time to 2 hours per day.9

Television sets should be removed from children’s bedrooms.10

Children younger than 2 should be discouraged from watching television.10

31% of Louisiana parents have heard of the American Academy of Pediatrics recommendations for children’s television viewing time.
SPORTS PARTICIPATION

GRADE: C

The percentage of children and adolescents who participate on at least 1 school or community sports team.

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children &amp; Adolescents Aged 6-17</td>
<td>2007 NSCH 51.6%</td>
</tr>
<tr>
<td>High School Students Grade 9-12</td>
<td>2011 LA YRBS 51.3%</td>
</tr>
</tbody>
</table>

Figure #7: Percentage of high school students who played on at least 1 sports team, by sex, grade, and race (2011)

Studies have found that students who participated in sports were more likely to meet physical activity guidelines and spend more time engaged in moderate-to-vigorous physical activity than their peers who do not participate in sports.

Depending on several factors of the school’s built environment, a school can encourage or hinder students’ ability and willingness to participate in sports. Students spend more time participating in sports when schools:

1. Provide adequate sports grounds and courts
2. Offer a wider range of sports
3. Organize sporting events during school time
4. Offer both competitive and non-competitive sports
5. Make sports available both inside and outside of school. Additionally, sports programs and teams with a lower athlete-to-coach ratio maximize physical activity gained from the sport.

The school environment influences sports participation among children and adolescents.

Almost 70% of Louisiana parents reported their child participates in organized sports or other forms of organized physical activity.

Source: Centers for Disease Control and Prevention (CDC), Louisiana Department of Education, Division of Student and School Learning, Health and Wellness Services. 2009, 2011 Youth Risk Behavior Survey (YRBS). Grade 12 is not displayed as an adequate sample size was not met.
WE ARE WHAT WE BUILD:
HEALTH & HEALTH BEHAVIORS
Overweight & Obesity

Aerobic Fitness

Overall Physical & Emotional Well-Being

Fruit & Vegetable Consumption

Tobacco Use
OVERWEIGHT & OBESITY

The proportion of obese Louisiana children and adolescents.

Classifications based on American Academy of Pediatrics (AAP)\(^4\) recommendations using CDC\(^5\) BMI growth charts:

- **OVERWEIGHT**: 85\(^{th}\) < BMI < 95\(^{th}\) percentile
- **OBESE**: BMI ≥ 95\(^{th}\) percentile

---

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Percentage</th>
<th>Obese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children aged 2-5</td>
<td>2011 PedNSS</td>
<td>12.9%</td>
</tr>
<tr>
<td>Children aged 10-17</td>
<td>2007 NSCH</td>
<td>20.7%</td>
</tr>
<tr>
<td>Adolescents in grades 9-12</td>
<td>2011 LA YRBS</td>
<td>16.1%</td>
</tr>
<tr>
<td>Children &amp; Adolescents aged 2-19</td>
<td>2011 LASBHC</td>
<td>27.1%</td>
</tr>
</tbody>
</table>

---

**The BUILT ENVIRONMENT is thought to influence obesity by creating environments that promote increased energy consumption and decrease energy expenditure.**\(^7\)

Environments promoting a poor diet are described as those lacking a supermarket for access to inexpensive fresh foods and having many fast food restaurants.\(^8\) People who have access to local markets offering inexpensive access to healthier foods are more likely to eat a healthier diet compared to those more reliant on convenience stores and fast food chains offering calorie-dense, nutrient-poor food choices.\(^9\)

Additionally, neighborhood design can favor sedentary behaviors over more active pursuits. For example, streets with heavy traffic, no safe pedestrian crosswalks, or sidewalks/bike lanes encourage driving to destinations over active transportation such as biking or walking. Gordon-Larsen, et al.\(^20\) found the proportion of overweight adolescents decreased as the number of recreation facilities and sports clubs, such as the YMCA or public pools, per census block increased. Having just 1 physical activity facility per census block was associated with a 5\% decrease in the odds of overweight compared to those with no facilities. People living in neighborhoods with 7 or more physical activity facilities were 32\% less likely to be overweight than those living in areas without such facilities.\(^20\)

---

When Louisiana parents were asked how concerned they are about obesity rates among Louisiana children, 53\% reported being very concerned, 35\% are somewhat concerned, and 12\% are only mildly or not at all concerned.
50% of Louisiana parents believe childhood obesity is worse in Louisiana than in other states while 40% of parents think childhood obesity is the same here compared to other states. Only 3% of parents believed Louisiana’s childhood obesity epidemic is better than other states.
AEROBIC FITNESS

GRADE: C

The percentage of adolescents who performed within the Minimum Fitness Standard (MFS) on the PACER sub-test of aerobic fitness.

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-2012 HRPFA</td>
<td>43.8%</td>
</tr>
</tbody>
</table>

One study among children aged 8-11 years old found average time spent in physical activity as measured by accelerometry was moderately correlated ($r=0.23$) with aerobic fitness measured by indirect calorimetry; but more highly correlated with average time spent in vigorous physical activity ($r=0.32$ for boys, $r=0.30$ for girls). Another study measuring physical activity using an accelerometer and pedometer in children 8-10 years old found physical activity was positively correlated to aerobic fitness (accelerometer, $r=0.66$; pedometer, $r=0.59$).

This suggests built environment interventions increasing physical activity among children and adolescents may also increase their aerobic fitness levels. For example, increasing the amount of time children and adolescents spend in school-based physical education (PE) classes can both increase aerobic fitness and time spent engaged in moderate-to-vigorous physical activity (MVPA).

The Physical Activity Task Force recommends modifying PE classes for elementary, middle, and high schools by increasing the amount of:

1. time children spend in PE class;
2. time they are physically active in PE class; and
3. time spent engaged in MVPA.

Schools implementing these recommendations have increased time spent in PE class by approximately 10%, increased the amount of MVPA students engage in during PE by 50% and have seen increases in aerobic capacity and fitness of their students of approximately 8%.
The proportion of adolescents who have attempted suicide during the past 12 months.

Griffiths, et al. showed children involved in extracurricular sporting activities exhibit lower prevalence of hyperactivity or attention disorders, behavioral and emotional problems, have better relationships with peers, and are more outgoing and social in general. Neighborhoods should encourage participation in such activities by providing access to recreation centers and after-school programs for children and adolescents. Conversely, neighborhoods where children lack the ability to play outdoors autonomously can be a detriment to their mental health. Studies show children who cannot play outdoors due to safety concerns or a lack of green space exhibit more depression, anxiety, and antisocial behavior to peers and parents than children with more freedom to play outside without constant parental supervision. Although not widely studied scientifically, both unstructured outdoor play and participation in more structured after-school sports programs seem to make children and adolescents happier and protect them from many emotional and psychological issues.
FRUIT & VEGETABLE CONSUMPTION

THE GROCERY GAP:
The absence of chain supermarkets in low-income areas.28

Access to low-cost healthy food options remains a major limitation to improving the diet and health of those living in low income communities. The grocery gap rings especially true for Louisiana since over 18% of our population is below the federal poverty line, 4.3% higher than the national average.30 A New Orleans study showed low-income neighborhoods were home to a greater density of fast-food restaurants than higher income areas. The lower income areas had approximately 2.4 fast food restaurants per square mile compared to 1.5 in the higher income communities.31

An individual’s food choices are driven by preference, access, availability, and cost of the food.7 Many studies show communities’ diets reflect their access to supermarkets and farmer’s markets providing low-cost fresh fruits, vegetables, and other healthful foods.32,33,34 Related, one study found adolescent males in areas further from fast food restaurants and convenience stores consumed more fruit and vegetables compared to those living close to these food sources.34 There is a need to counter this “grocery gap” by encouraging supermarkets and farmer’s markets to locate in low-income areas and decrease the availability of fast food restaurants in these communities.

RECOMMENDATIONS

1. At least 4 servings of fruit per day28
2. 3 or more servings of vegetables per day28

60% of Louisiana parents have heard of the 2010 Dietary Guidelines for Americans, USDA Food Pyramid, or USDA’s “My Plate” nutrition guides.
2012 Louisiana’s Report Card on Physical Activity & Health for Children & Youth

**TOBACCO USE**

**GRADE:**

The percentage of Louisiana middle and high school students who use tobacco products including smokeless tobacco, cigars and cigarettes.

<table>
<thead>
<tr>
<th>Tobacco Products</th>
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<tr>
<td>Tobacco Products</td>
<td>2011 LYTS</td>
<td>27.4 %</td>
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<tr>
<td>Cigarettes</td>
<td>2011 LYTS</td>
<td>16.2 %</td>
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<tr>
<td>Smokeless Tobacco</td>
<td>2011 LYTS</td>
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<tr>
<td>Cigars</td>
<td>2011 LYTS</td>
<td>11.0 %</td>
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</table>

Outdoor and television advertising is a major force on youth smoking.

One study found youth living in a country without a tobacco advertising ban were more likely to overestimate the actual prevalence of smoking in their area compared to youth living in a country with a tobacco advertising ban. Additionally, the National Cancer Institute concluded that "the evidence base indicates a causal relationship between tobacco advertising and increased levels of tobacco initiation and continued consumption." Even brief exposure to tobacco advertisements can influence youths’ opinions on smoking.

In 2009, federal legislation, the Family Smoking Prevention and Tobacco Control Act (FSPTCA), passed allowing the Food and Drug Administration (FDA) to begin levying strict regulations on the making, marketing, and selling of tobacco products.

**Figure #15: Percentage of Students who Indicated Tobacco Use, by type (2011)**

<table>
<thead>
<tr>
<th></th>
<th>Middle School</th>
<th>Female</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Total</td>
<td>14.9%</td>
<td>23.5%</td>
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<tr>
<td></td>
<td>Cigarettes</td>
<td>6.3%</td>
<td>14.3%</td>
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<tr>
<td></td>
<td>Cigars</td>
<td>6.1%</td>
<td>8.9%</td>
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<tr>
<td></td>
<td>Smokeless</td>
<td>4.8%</td>
<td>2.3%</td>
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<tr>
<td></td>
<td>High School</td>
<td>36.5%</td>
<td>28.1%</td>
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<tr>
<td></td>
<td>Total</td>
<td>23.6%</td>
<td>19.8%</td>
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<tr>
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<td>Cigarettes</td>
<td>14.6%</td>
<td>11.7%</td>
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<td></td>
<td>Cigars</td>
<td>11.1%</td>
<td>9.3%</td>
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<tr>
<td></td>
<td>Male</td>
<td>31.0%</td>
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<td></td>
<td>Total</td>
<td>18.0%</td>
<td>11.6%</td>
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<tr>
<td></td>
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<tr>
<td></td>
<td>Cigars</td>
<td>14.3%</td>
<td>6.2%</td>
</tr>
</tbody>
</table>

Source: Centers for Disease Control and Prevention, Louisiana Department of Health and Hospitals, Chronic Disease Prevention & Control Unit, Louisiana Tobacco Control Program. 2011 Louisiana Youth Tobacco Survey (LYTS). www.latobaccocontrol.com
Among many other tobacco regulations allowed under this Act, the FSPTCA permits the FDA to place strict regulations on tobacco marketing, especially when targeted to children and youth. Allowable regulations include:

1. Restricting all outdoor tobacco advertising within 1,000 feet of schools and playgrounds;
2. A ban of all tobacco company sponsorships of sports and entertainment events;
3. Prohibiting all frequent buyer giveaway programs;
4. Limiting advertising in children/youth publications;
5. Restricting point-of-sale to black-and-white advertising only, expect in adult only stores;
6. Restricting self-service dispensaries to adult-only locations; and
7. Requiring retailers to verify age before sale and impose federal penalties for violations.38

This is a huge step, and a first, in tobacco control. Tobacco taxes and smoke-free area laws are making great strides in reducing tobacco use already, and this Act is estimated to decrease youth smoking by an additional 11% over the next 10 years.38
WE ARE WHAT WE BUILD:
FAMILY
Family Perceptions & Roles
**FAMILY PERCEPTIONS AND ROLES**

**INDICATOR**

The proportion of parents who attend their children’s events and activities.

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>2007 NSCH</td>
<td>85.8%</td>
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</table>

*Children who live in areas that parents perceive as safe and “kid friendly” are likely to have more opportunities to walk and bike to nearby play areas and other locations.*

Timperio et al. found children aged 5-6 and adolescents aged 10-12 were less likely to actively commute to school or other local destinations if their parents perceived their children would need to cross multiple streets and/or that there are no lights or crosswalks for their children to use. Safe sidewalks, crossings, and walking school buses may decrease parental concerns and increase the likelihood of children actively commuting in and around their community.

86% of Louisiana parents usually or always attend their child’s sports or other physical activity events.

A striking 92% of parents believe parents play a very important role in influencing their child’s level of physical activity, and another 6% believe parents play a somewhat important role.

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WE ARE WHAT WE BUILD:
SCHOOL & COMMUNITY
Physical Activity Programming at School
Training of School Personnel in Physical Activity
Built Environment & Community Design
PHYSICAL ACTIVITY PROGRAMMING AT SCHOOL

The proportion of adolescents who participate in daily physical education at school.

Grade: D

INDICATOR

Data Source | Percentage
---|---
Adolescents in grades 9-12 | 2011 LA YRBS | 42.5%

Percentage of high school students who participate in daily PE class. (2011)

<table>
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<tr>
<td>Female</td>
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<td>Grade 9</td>
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<td>Grade 10</td>
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<td>Grade 11</td>
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<tr>
<td>White</td>
<td>43.4%</td>
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<tr>
<td>African American</td>
<td>42.1%</td>
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Source: Centers for Disease Control and Prevention (CDC), Louisiana Department of Education, Division of Student and School Learning, Health and Wellness Services. 2009, 2011 Youth Risk Behavior Survey (YRBS)

High school students report altering the structure of physical education (PE) class by increasing availability and accessibility of sporting equipment and activities at school could be an effective strategy to increase their participation in physical activity. 42

One study found that overall students wanted more organized activities, both competitive and non-competitive, during and after school.42 The use of the gymnasium and school-owned sporting equipment during recess and the lunch period can increase students’ participation in physical activity at school. Both males and females wanted the opportunity to be involved in choosing which activities and sports they will learn and play in PE class. However, male and female students do not agree on all things affecting their physical activity in school. Girls felt schools should offer a greater number of sports teams and a wider range of sports, including non-competitive options while males wanted additional PE classes and PE homework.42

LA DEPARTMENT OF EDUCATION REQUIREMENTS FOR PUBLIC SCHOOLS

1. All elementary and middle schools are required to provide a minimum of 150 minutes of physical education (PE) per week for students in grades 1-8.40

2. All high schools are required to take at least 1½ units of PE and ½ unit of health instruction.40

PRIVATE HIGH SCHOOL REQUIREMENTS

2 units of PE with at least 30 minutes of health instruction taught in each.41
According to the 2006 School Health Policies and Programs Study (SHPPS), all newly hired middle and high school physical education teachers in Louisiana are required by the Department of Education (DOE) to have either undergraduate or graduate training in physical education or a related field. The DOE also requires newly hired middle and high school physical education teachers to be certified, licensed, or endorsed by the state. It is important to note these requirements are only for middle and high schools.

In 2002, the Community Preventive Services Task Force released recommendations to increase physical activity in communities, especially among school-age children. Consistent with high school students’ ideas to promote physical activity, the Task Force suggests PE teachers 1) change the activities taught during class; 2) increase the amount of time students spend in MVPA; and 3) change the rules of the game, if needed, to increase physical activity levels. They also suggest schools increase the number of minutes/days students spend in PE classes.
**Built Environment & Community Design**

**Indicator**

The percentage of children who have sidewalks, walking paths, parks, or playgrounds in their neighborhoods.

---

**Data Source** | **Percentage**
--- | ---
Sidewalks or walking paths | 2007 NSCH | 62.0%
Parks or playgrounds | 2007 NSCH | 65.5%

Numerous studies show higher physical activity levels among children and youth living in neighborhoods with greater availability and accessibility of parks and recreation centers. The number of recreation areas within walking distance of a child’s home is associated with physical activity levels and also increases the amount of walking and bike riding reported by children.

**Specific design features of parks and recreation areas are also important for increasing physical activity levels among all ages of children and youth.**

Children were 75% more likely to be engaged in moderate-to-vigorous physical activity in parks with sport courts than in those without courts. The presence of other park features associated with increased intensity of physical activity are sports fields, playgrounds, and features that cater to older age groups, such as skate parks and velodromes. Children are less likely to be active in picnic areas or open spaces. A higher proportion of neighborhood land dedicated to recreation areas also increases physical activity among the children living in the area. This suggests that the presence of neighborhood parks as well as the design features work together to maximize the potential physical activity opportunities provided for children and youth by neighborhood parks and recreation areas.

**In addition to parks, the school environment also offers opportunities to promote physical activity in the community.**

For example, joint-use agreements facilitate this by providing the surrounding neighborhood access to their amenities, such as courts for sport and open space, after school hours and on weekends. In June 2011, House Bill 358 was signed into law encouraging schools to enter into joint-use agreements by limiting liability of school boards. Under this law, those using the school facilities assume liability.
2012 Report Card Development & Data Sources

An interdisciplinary team of scientists and professionals compiled and assessed the available resources to determine this year’s grades. Several sources of data were available to inform the grades:

**Louisiana Health-Related Physical Fitness Assessments (HRPFA)**

Louisiana Health-Related Physical Fitness Assessments are conducted by the Cecil J. Picard Center for Child Development and Lifelong Learning and the University of Lafayette’s Kinesiology Department. These Fitness Assessments provide information on students’ aerobic fitness, which is measured using a 20-meter shuttle run, called the Progressive Aerobic Cardiovascular Endurance Run (PACER). The PACER is just one subtest of the Fitness Assessments. Results are assessed to place children within age-specific and sex-specific cutoff reference health standards, developed by the Cooper Institute in Dallas, Texas (Fitnessgram). PACER results from the 2011-2012 Fitness Assessments were completed by 38,366 students between the ages of 10 and 18 years from 18 Louisiana parishes. The results from the Louisiana Health Related Physical Fitness Assessments can be found at: [http://www.picardcenter.org/Publications/Pages/Publications.aspx](http://www.picardcenter.org/Publications/Pages/Publications.aspx)

**Louisiana School-Based Health Centers (SBHC) Obesity Data**

SBHCs in Louisiana are established, monitored, and provided assistance by the Office of Public Health’s Adolescent School Health Program. The SBHCs provide public school students both primary and preventive physical and mental health services. SBHCs are mandated to serve middle and high school students; however, some sites are located on elementary school campuses and are able to serve children from Early Headstart, Headstart, and Pre-Kindergarten in addition to children in Kindergarten through 12th grade. BMI data was available for 23,787 children (aged 2-19 years) who visited the SBHC’s in Louisiana during the 2010-2011 school year. More information on SBHCs in Louisiana can be found at: [http://www.dhh.louisiana.gov/](http://www.dhh.louisiana.gov/)

**Louisiana Youth Tobacco Survey (LYTS)**

The Louisiana Tobacco Control Program which is housed within Louisiana’s Department of Health and Hospitals (DHH) in collaboration with the Centers for Disease Control and Prevention (CDC) administers and collects the LYTS. Survey results and data used in this Report Card were provided by The Louisiana Tobacco Control Program. The LYTS is administered every other year among public middle and high school students in Louisiana to obtain data on tobacco use (cigarettes, smokeless tobacco products, cigars, cigarillos, little cigars, bidis, and kreteks). The LYTS also obtains information on second hand smoke, cessation attempts, tobacco advertising, school tobacco prevention education, and access and availability of tobacco products. The 2011 LYTS was completed by 2,412 middle and high school students. The LYTS results are weighted to be representative of all middle and high school students in Louisiana. Some of the LYTS results are also available online: [http://www.800quitnow.com/surveysdata/](http://www.800quitnow.com/surveysdata/)

**Louisiana Youth Risk Behavior Survey (LA YRBS)**

The Louisiana YRBS is conducted by the Louisiana Department of Education (DOE), Division of School and Student Learning Support, Health and Wellness Services Section and provided the 2011 survey results for this Report Card. National data is collected by the Centers for Disease Control and Prevention (CDC) under the Division of Adolescent and School Health’s Youth Risk Behavior Surveillance System (YRBSS) and coordinates and assists with state-level surveys. The YRBS is administered every other year (odd years) and is designed to assess health-risk behaviors and the prevalence of obesity and asthma among middle and or high school students. In 2011, the survey was completed by 1,160 students. Survey results are weighted to be representative of all high school students in Louisiana. National and state level YRBS data can also be found at: [http://apps.nccd.cdc.gov/youthonline](http://apps.nccd.cdc.gov/youthonline)
National Survey of Children’s Health (NSCH)\(^1\)
The NSCH is a national survey that is conducted every four years by the Maternal and Child Health Bureau within the U.S. Department of Health and Human Services, with the last survey cycle conducted in 2007. Telephone numbers are called at random to identify households with one or more child less than 18 years of age. The NSCH is administered to the parent or guardian concerning one child randomly selected to be the subject of the interview. Thus, child health measures are collected by proxy report. The NSCH collects data on over 100 indicators of child’s health including: BMI, physical activity, screen time, and their environment to track data, educate stakeholders, and inform decision makers. Although the NSCH is a national survey, data is collected and available from each state. Data for the 2007 NSCH were collected from 91,642 completed interviews in the United States, while 1,868 interviews were completed in Louisiana between April 2007 and July 2008. Survey responses were weighted to be representative of each state and the national population. The NSCH data can be found at: http://www.childhealthdata.org/learn/NSCH

Pediatric Nutrition Surveillance System (PedNSS)\(^5\)
The PedNSS monitors the nutrition and health of low-income children (from birth to 20 years of age) participating in three federally-funded maternal and child health programs: the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), the Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) Program; and the Title V Maternal and Child Health Program (MCH). Data collection includes information on demographics, birthweight, length/height, weight, anemia, infant feeding practices, and health risk behaviors. Annual surveillance data is available through reports which include national information and well as data at the state-level. The 2010 PedNSS included data for nearly 9 million children from 46 states, the District of Colombia, and 6 Indian Tribal Organizations. The 2010 PedNSS included data for overweight and obese on 53,969 Louisiana children aged 0-5 years. More information on the PedNSS can be found at: http://www.cdc.gov/PEDNSS/pednss_tables/index.htm

School Health Policies and Programs (SHPPS)\(^43\)
The Centers for Disease Control and Prevention (CDC) conducts the School Health Policies and Program Study (SHPPS), a national survey to assess school health policies. Data is collected at the state, district, school, and classroom levels through computer-assisted telephone interviews or self-administered mail questionnaires to obtain a nationally representative sample. The most recent survey cycle of the SHPPS was conducted in 2006 with the next administration planned for 2012. The 2006 SHPPS included data collected from 50 states and the District of Columbia, 538 districts, 1103 personnel in elementary, middle, and high schools, 912 health instructors, and 1194 PE instructors. SHPPS can be assessed at the following website: http://www.cdc.gov/HealthyYouth/shpps/index.htm

Acronyms & Definitions

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<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
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<td>AAP</td>
<td>American Academy of Pediatrics</td>
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<td>BMI</td>
<td>Body Mass Index</td>
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<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<td>DHH</td>
<td>Louisiana Department of Health and Hospitals</td>
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<td>DOE</td>
<td>Louisiana Department of Education</td>
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<td>FDA</td>
<td>Food and Drug Administration</td>
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<td>FSPTCA</td>
<td>Family Smoking Prevention and Tobacco Control Act</td>
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<td>Minimum Fitness Standards</td>
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<td>MVPA</td>
<td>Moderate-to-Vigorous Physical Activity</td>
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<td>HRPFA</td>
<td>Health-Related Physical Fitness Assessment</td>
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<tr>
<td>LAHPERD</td>
<td>Louisiana Association for Health, Physical Education, Recreation and Dance</td>
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<td>LYTS</td>
<td>Louisiana Youth Tobacco Survey</td>
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<td>NSCH</td>
<td>National Survey of Children’s Health</td>
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<td>PACER</td>
<td>Progressive Aerobic Cardiovascular Endurance Run</td>
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<td>PE</td>
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<td>PedNSS</td>
<td>Pediatric Nutrition Surveillance System</td>
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A Look Back:

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References


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Physical Activity, pg 15: “Two Happy Girls Holding Hands Walking to School at Sunrise” by D. Sharon Pruitt
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Overweight & Obesity, pg 23: “Farmers’ Market” by Natalie Maynor
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The majority of Louisiana parents, approximately 70%, believe either poor diet or a lack of physical activity is the primary cause of childhood obesity.