



Evaluation Snapshot

Research summaries at a glance

June 2010

Evaluation Snapshot examines the effect of Georgia Family Connection community collaboration on indicators of child, family, and community well-being in the state.

Study Shows Community Collaboration Supports Healthier Birth Weights in Georgia Counties

Compiled from research by The Theory of Change workgroup

This edition of *Evaluation Snapshot* examines whether collaboration has a positive effect on rates of infants born at healthy weights. Our study looks at differences in rates of low birthweight from 1997 to 2004 in Georgia counties where Family Connection collaborative organizations targeted the indicator, and in similar counties without collaborative organizations in four southeastern states (Arkansas, Mississippi, Tennessee, or Virginia). We chose these four states because of their nearby location and their consistent recording of county rates of low birthweight for each year under investigation. Making accurate comparisons between these counties required us to statistically match each county in Georgia to a comparable county in one of the other states. We compared the amount of change in the rate of low-weight births over this time for Georgia Family Connection counties and their matched counterparts to determine if collaboration had any effect on these rates.

Low Birthweight in Georgia

Using Georgia KIDS COUNT data from the Annie E. Casey Foundation's *Community Level Information on Kids* (CLIKS) database, we obtained low-birthweight (LBW) rates for Georgia's 159 counties and all 387 counties in the comparison states. While Georgia had LBW data available from 1994 to 2007, our comparison states measured this indicator consistently only from 1997 to 2004. Georgia's average rate of low birthweight slightly increased during this time from 8.8 percent in 1997 to 9.3 percent in 2004.

Representative County Collaborative Organizations Targeting LBW in Georgia

Georgia counties vary in terms of when their collaborative organizations formed and the indicators they target. Georgia Family Connection counties that target an indicator make it the direct focus of a specific collaborative strategy. We reasoned that collaboratives spending the most time targeting the low-birthweight indicator would be the ones most likely to affect it. We focused on the **group of 25 counties that targeted LBW** for at least two years, which offered the best combination of length of time targeting and group size.

Identifying Comparable Counties from the Four Southeastern States

Since all Georgia counties have formed Family Connection collaborative organizations, we could not test the effect of collaboration using random assignment. Instead, our study used a technique called *propensity score matching*, the leading method for simulating randomized experimental conditions when selecting a matched comparison group.

The goal in selecting a comparison group is to identify a set of counties that is most similar to Georgia counties in every way, *except* having community collaboratives directly targeting LBW. This

Low birthweight refers to an infant born weighing 2,500 grams or less (less than 5.5 pounds).

Georgia ranks 38th out of 50 states for the percentage of low-birthweight babies, according to the national 2010 KIDS COUNT Data Book.

Propensity Score Matching, the leading method for emulating the conditions of a randomized experiment, provides an effective technique for identifying similar counties based on multiple characteristics.

allows us to **attribute any differences in LBW to effects of collaboration**. Imagine trying to identify comparison kids for a sample of girls and boys. If we want to match on gender, it's easy to pick comparison youth to match the gender of each youth in our sample. But when we need to match on gender, hair length, and eye color, it's much more difficult to find an exact match on all three characteristics for each child. Propensity score matching handles this, helping us find the closest match for each Georgia county based on numerous county characteristics.

We gave heavier *weights* to comparison counties that match Georgia counties more closely than others. Weighting each comparison county more or less heavily depending upon how closely it matches a Georgia county allows the analysis to create a comparison sample that matches almost identically the sample of Georgia counties.

County Characteristics Used to Match 25 Georgia and 387 Comparison Counties

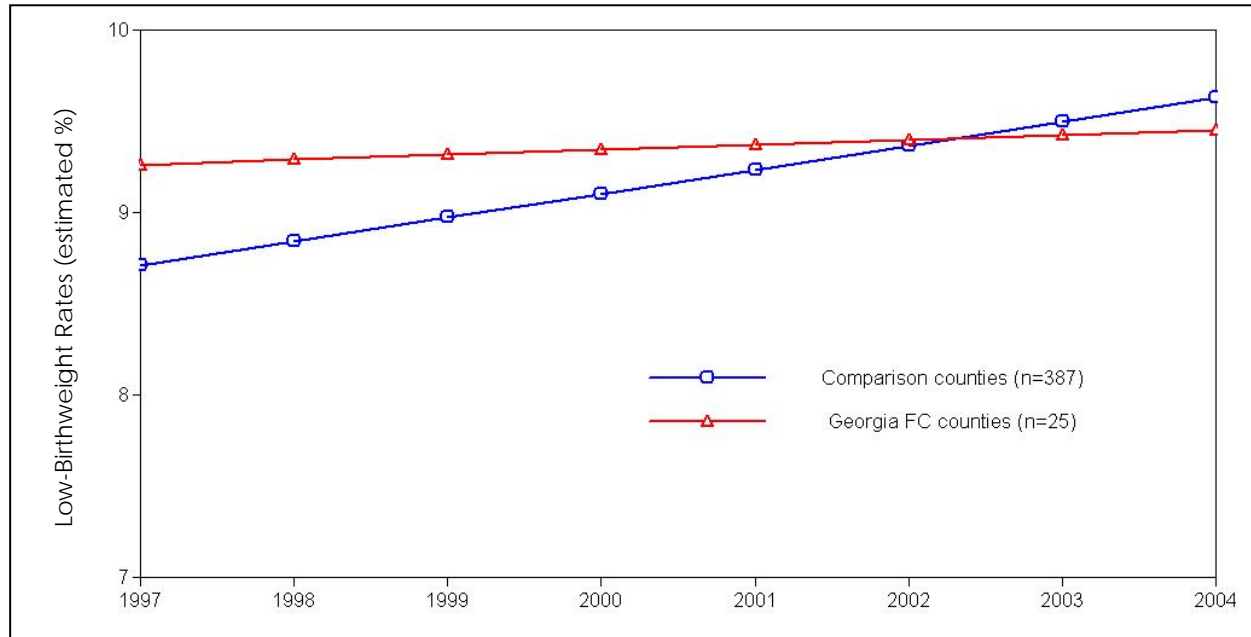
	Before Matching		After Matching	
	2 Years Targeting Ga. Counties	Comparison Counties	2 Years Targeting Ga. Counties	Comparison Counties
Population	86,045	47,250	86,045	84,211
Percent population under 18				
Total	38.5	35.7	38.5	38.4
Black	30.9	23.8	30.9	28.9
Hispanic	4.6	2.8	4.6	4.4
Percent children in single-parent households	25.9	24.4	25.9	25.4
Socio-economic Status (SES)	76.0	75.7	76.0	76.3
Change in total population (1990-2000)	15,785	5,954	15,785	16,281
Change in population under 18				
Total	-1.8	-2.5	-1.8	-1.8
Black	.43	-.07	.43	.32
Hispanic	3.1	1.7	3.1	3.0

After completing the matching process, we can see how similar the 387 comparison counties are to our Georgia Family Connection county collaboratives targeting LBW for two or more years on all matching variables. These results assure us that we can now compare change in low-birthweight rates in recent years for these two comparable groups of counties.

Key Findings

1. Georgia counties can be matched successfully to counties in other southern states in a way that minimizes the differences between them, which makes their comparisons more meaningful.
2. Georgia counties with Family Connection collaboratives directly targeting LBW had virtually stable rates over time. LBW rates increased markedly among comparison counties. This difference in change in between Georgia and comparison counties was statistically significant.
3. These findings are consistent with the hypothesis that Family Connection collaboratives contribute to promoting healthy births and improving the rate of low birthweight in Georgia counties.

Changes in Low-Birthweight Rates between Georgia Family Connection Counties and Comparison Counties



Evaluation Snapshot is based on reports from the Georgia Family Connection Partnership Theory of Change Workgroup, a team of researchers from EMSTAR Research and Georgia State University.

Please direct questions or comments to Steve Erickson, Ph.D. at eval@gafcp.org.

Next Step: Targeting Effects of Collaboration on LBW in Four Counties

Georgia Family Connection Partnership is implementing a low-birthweight initiative in four counties targeting this indicator. These counties will receive customized technical assistance during the next year. We will examine LBW rates again to determine the effect of collaboration on LBW rates in the counties targeting this indicator and look at factors that may have the most positive effects in addressing this issue.

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Georgia Family Connection Partnership (GaFCP) is a public/private nonprofit created and funded by the state of Georgia and funders from the private sector. We support Georgia Family Connection, a statewide network of 159 county collaborative organizations committed to improving the quality of life for children, families, and communities across the state.

GaFCP measures progress in child and family well-being by tracking indicators in five result areas—Healthy Children; Children Ready to Start School; Children Succeeding in School; Stable, Self-Sufficient Families; and Strong Communities. GaFCP is the designated KIDS COUNT grantee for the state of Georgia and receives support and funding from The Annie E Casey Foundation, which funds KIDS COUNT, a national and state effort to report the status of children in the United States.