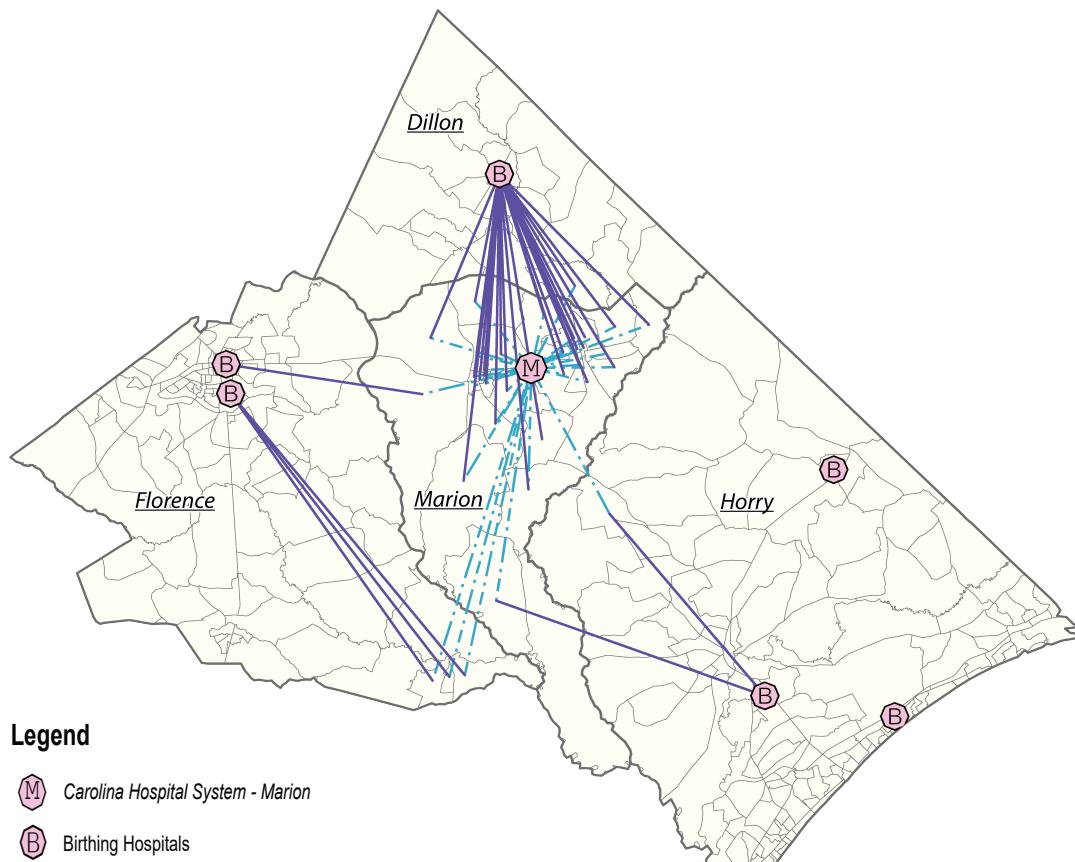


Birthing Hospital Distance Analysis

for Women of Childbearing Age in South Carolina



Legend

- Carolina Hospital System - Marion
- Birthing Hospitals
- Distance from Census Block Group without Marion
- Distance from Census Block Group with Marion
- SC 2010 Census Block Groups

For Women of Childbearing Age Statewide	Females Age 15 - 44 Population 2016 ³	With Carolina Hospital System - Marion ¹		After Loss of Perinatal Services ²	
		Average Distance to Birthing Hospital (mi)	Average Distance to Birthing Hospital (mi)	Change in Average Distance	
IN ALL AREAS	935,414	9.1	9.2	+0.1	

Affected Population Only ⁴	Females Age 15 - 44 Population 2016 ³	With Carolina Hospital System - Marion ¹		After Loss of Perinatal Services ²	
		Average Distance to Birthing Hospital (mi)	Average Distance to Birthing Hospital (mi)	Change in Average Distance	
IN ALL AREAS	7,048	10.5	21.2	+10.7	

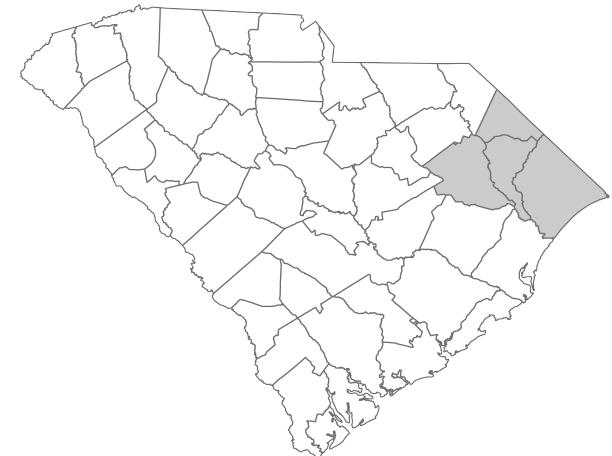
Notes:

1: This indicated the distance analysis results prior to Carolina Hospital System - Marion experiencing a downgrade in its Perinatal Rating from Level II to No Rating.

2: This indicates the distance analysis results after Carolina Hospital System - Marion's downgrade.

3: Total analyzed population based on block group population centroids. Population counts relative to each time period were used in weighting the travel distance to a hospital.

4: "Affected Population Only" refers to the population residing in Block Groups whose closest Birthing Hospital was Carolina Hospital System - Marion when the hospital still had its Perinatal Rating.



Eroding Access to Childbirth Care in Rural Areas – a Case Study

Healthcare researchers have noted that health disparities exist between rural and urban women, particularly among women of reproductive age and their access to obstetric care. Interruption or loss of hospital-based obstetric care has been shown to further impede access to women's health providers in rural areas. (Sontheimer, et al., 2008), (American College of Obstetricians and Gynecologists, 2014). Analysis has shown a downward trend in access to hospital-based obstetric care in the rural US, and closure of hospital-based obstetrics services have been shown to disproportionately affect rural counties. Between 2004 and 2014, 179 rural counties nationwide lost hospital-based obstetric services, in the same time period rural counties in South Carolina experienced a 25% decline in hospital-based obstetric services. (Hung, Kozhimannil, Casey, & Henning-Smith, 2017), (Kozhimannil, Hung, Henning-Smith, Casey, & Prasad, 2018).

In 2018 Carolina Hospital System – Marion experienced a downgrade in its level of perinatal care services, transitioning from a Perinatal Level II facility able to provide specialty care to pregnant women to no longer having a facility rating. To evaluate the impact of this change in care availability, GIS distance analysis was performed using ESRI Network Analyst tools.

In terms of travel distance, women whose closest birthing hospital was Marion now have to travel on average an additional 10.7 miles for hospital-based obstetric care.



Integrated Health & Policy Research
at the USC Institute for Families in Society