

## Educating Children in Rural Schools: Does Nutrition Really Matter?

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Public education in America is a multi-billion dollar enterprise that is funded almost exclusively by tax dollars. As an emerging part of this picture, rural public schools have been an integral part of the American cultural landscape for over 200 years. Rural public school districts are defined as a school or district that is located in a place outside of a metropolitan statistical area and has a population of fewer than 2,500 persons (National Center for Educational Statistics, 2015).

Rural public school districts have unique traits and characteristics that distinguish them from suburban and urban public school districts. The National Center for Educational Statistics (2015) reported that for the 2013 – 2014 school years, 48,800,105 students are enrolled in public school districts in the United States, of those students, 9,028,020, or almost 19%, attend rural public schools. According to the United States Department of Agriculture (FY 2014), the total number of public school students participating in the National School Lunch Program was 30,457,756. Of that number, over 70% of students were identified as participating in the free and reduced lunch program. Numbers of this magnitude reflect the scope and impact of rural public education and the importance that school nutrition has in the educational process.

The current climate and emphasis on accountability, and in particular NCLB has placed an enormous amount of political pressure on schools to demonstrate effective leadership [1]. Continued pressure from the federal and state governments for high academic standards and achievement show no sign of abating. According to the Food Research and Action Center (2015), studies conclude that students with proper nutrition increase their math and reading scores as well as improve their speed and memory in cognitive tests. Further, students who eat at school – closer to class and test-taking time – perform better on standardized tests than those who skip breakfast. Likewise, studies show that students with poor nutrition often exhibit sleepiness, inactivity and forgetfulness while at school [2]. As such, public schools bear the onus for ensuring that all aspects of a student's education, including access to proper nutrition.

Nutrition and a balanced diet are essential for adequate maturation and biological functioning, especially in the early childhood and young adolescents. During this maturation period,

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any nutritional deficit may lead to alterations in growth, brain functioning and the cognitive process, specifically in language tasks, which precedes the acquisition and application of reading skills and comprehension [3]. Benton and Jarvis, 2007, posited that on average, students who only eat a small breakfast spend significantly less time attending to their work [4].

In studies, participants who showed improvement in school grades, performance and attendance had proper nutritional intake [5]. As pointed out in the data, meals and snacks provided at school, represent a significant portion of meeting student's nutritional requirements. In addition to studies completed by medical professionals; studies, both longitudinal and short term, from across various academic disciplines, support the notion that adequate nutrition can assist in children's educational progress. Khan, 2006, suggested that proteins, fats, carbohydrates and other nutrients, such as iron and calcium are essential building blocks for cognitive development and processing. In essence, nutrition plays a vital role in cognition and the learning process by acting on molecular systems or cellular processes that are vital for maintaining cognitive function [6]. As such, in response to the supposition, educating children in rural schools: does nutrition really matter - the answer is a resounding yes [7].

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