

Chronic Disease Risk of Family Child Care Professionals:

Results of a Statewide Survey of Health and Wellbeing Indicators

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Abstract

Objective: To document the chronic disease risk factors and prevalence rate of family child care professionals. Given that a significant number of young children spend time in family child care (FCC) settings, these environments are an important focus for efforts to improve children's health. **Methods:** Data were collected in fall 2021 from a statewide survey of licensed FCC professionals in one mid-Atlantic state (N=541), using validated questionnaires to assess health status, including chronic diseases like high blood pressure, diabetes, and asthma, as well as nutrition and physical activity. **Results:** While a majority of respondents reported good overall health and adherence to healthy behaviors like drinking water, eating fruits and vegetables, and engaging in physical activity, a substantial proportion were overweight or have obesity (86.1%), and there were notable rates of high blood pressure (41.1%) and asthma (17.9%). The study found higher diabetes rates among FCC professionals compared to national averages for early childhood education workers, possibly reflecting demographic differences. **Conclusions:** The results highlight both areas needing support, such as managing chronic disease risks, and areas where FCC professionals excel, like maintaining healthy lifestyle habits. **Policy Implications:** There is a need for targeted support for FCC professionals to manage and prevent chronic diseases, thereby ensuring their wellbeing and enabling them to continue being positive health role models for the children in their care.

Introduction

Given that 60% of young children (ages 0-5) have at least one weekly nonparental care arrangement,¹ these environments are important determinants of the health and wellbeing of children and families. While most of the child care literature is focused on center-based programs, home-based or family child care (FCC) programs are an important environment to consider. In family child care programs, a small number of mixed aged children (typically <10) are cared for in a home setting, generally with one or two adults. FCC programs are a popular choice for infants and toddlers,¹ children from non-English speaking households, and those in rural areas.²

Understanding the chronic disease risk of FCC professionals is important for several reasons. A healthy professional ensures the safety and wellbeing of the children in their care, maintains consistency and reliability in caregiving, and contributes to the children's emotional security. The emotional and mental health of the provider influences their interactions with children, impacting the quality of care. Research shows that child care providers who were more positive showed

more optimism, provided higher quality of care and expressed less negative regard and more positive remarks towards the children.³

In addition, FCC professionals serve as role models for the children in their care. Research suggests that when staff do not engage in outdoor play, children engage in significantly less physical activity,⁴ and child care provider practices around mealtime are associated with child dietary intake.⁵ It is important to identify opportunities to leverage educators' positive health behaviors and address barriers to improving other health behaviors.

Despite the importance of the health of this workforce, few studies have documented their chronic disease risk, which is needed in order to identify assets and opportunities to provide support.⁶ To address this gap, this study focused on FCC professionals and sought to determine their health status in relation to chronic disease.

Methods

A statewide survey of licensed FCC professionals was conducted in the fall of 2021. The full methods are available elsewhere,⁷ but briefly, a series of email invitations were sent by the state's licensing office to all licensed FCC professionals (N=541). Respondents were eligible to enter a raffle for one of fifteen \$200 gift cards.

Measures

Survey items were drawn or adapted from existing, validated questionnaires. Demographic and health status items were drawn from the Behavioral Risk Factor Surveillance System.⁸ To measure chronic disease status, respondents were asked to report, "Have you ever been told by a doctor, nurse or other health professional that you have..." with options of high blood pressure, diabetes, pre-diabetes or borderline diabetes and asthma.

Nutrition items were drawn from the Food Attitudes and Beliefs Survey⁹ and included questions related to water consumption and frequency of fast food consumption. Physical activity was assessed using items drawn from the Health Information National Trends Survey (HINTS) survey,¹⁰ which asked about the frequency and duration of physical activity at the moderate to intense level.

Data Analysis

After data cleaning procedures, which included removing duplicates and respondents who answered fewer than 20% of questions, data were analyzed using descriptive statistics appropriate to the measure (e.g. frequencies, means). Body Mass Index (BMI) was classified using the standard formula and established cutoffs for adults (e.g. overweight defined as a BMI of 25-29.9; obesity defined as a BMI of 30 or higher).

Results

A total of 168 responses were included in the analysis (31% response rate). The majority of respondents identified as White (53.6%), with another third (34.3%) identified as Black or African-American (Table 1). Just 12 respondents (7.3%) identified as Hispanic, Latino/a or of Spanish origin. Only 10.2% of respondents (n=17) reported currently receiving SNAP benefits in the past 12 months. The mean number of hours worked per week was nearly 50 hours.

In terms of health status, the majority of respondents rated their overall health as Excellent (14.9%) or very good (47.4%) and a high proportion reported zero days in the past 30 days when their physical (73%) health was not good. Despite those reports, 86.1% of respondents are overweight or have obesity, 41.1% have diagnosed high blood pressure, and 17.9% have diagnosed asthma.

Table 1. Demographics and Chronic Disease Profile of Family Child Care Professionals, Delaware, 2021

	Number	Percentage
Demographics		
Identifies as White	89	53.6
Identifies as Black or African-American	57	34.3
Identifies as Hispanic, Latino/a or of Spanish origin	12	7.3
SNAP Recipient	17	10.2
Hours per week worked at child care job (mean, SD)	M = 49.54	SD = 16.6
Health Status		
Overall health rated excellent	23	14.9
Overall health rated very good	73	47.4
Overall health rated good	53	34.4
Overall health rated fair	5	3.2
In the past 30 days, zero days when physical health was not good	108	73.0
Body Mass Index Classification		
Normal or underweight	20	13.9
Overweight	60	41.7
Obese	64	44.4
Chronic Disease Diagnosis		
High blood pressure	62	41.1
Diabetes	19	12.7

Pre-diabetes or borderline diabetes	21	14.1
Asthma	27	17.9
Health Care Access		
Health insurance coverage	141	87.6
One or more person they think of as a personal doctor or health care provider	141	92.8
Needed to see a doctor but could not because of cost within the past 12 months	17	11.2
Health Behaviors		
Drink four or more cups of water per day	96	71.1
Eat fast food ≤ 1 time per week	99	77.3
Typically eat five or more fruits or vegetables each day	104	77.0
Three or more days per week of moderate to vigorous physical activity	77	56.2

A very small proportion of respondents reported financial barriers to health care, and nearly all respondents reported having one or more people they think of as a personal doctor or health care provider. A majority of respondents reported drinking four or more cups of water per day (71.1%), eating fast food ≤ 1 time per week (77.3%), consuming five fruits and vegetables each day (77.0%), and participating in moderate to vigorous physical activity at least three days per week (56.2%).

Conclusions

This study provided a portrait of chronic disease prevalence and risk factors among FCC professionals, identifying areas of potential support and other areas to be celebrated. The diabetes rate in our sample (12.7%) was nearly double the rate found in a recent national survey of ECE workers (6.5%), which included both center-based and home-based educators.¹¹ This increase may partially be due to the demographics of FCC educators in Delaware; 34.3% of our sample was Black or African-American, communities that have been disproportionately impacted by diabetes.¹²

The asthma rate in our sample (17.9%) is comparable to other national studies of ECE workers,^{11,13} but much higher than population-based estimates for women, and nearly 50% higher than the rate for women in the State of Delaware (12.6%). The existing research is inconclusive regarding the reason for this elevated risk, but one possible explanation includes poor indoor air quality in home and work environments due to high rates of pesticide use.¹⁴

In contrast, a high proportion of our respondents reported following recommended health behaviors including water drinking, fruit and vegetable consumption and physical activity. The rates in our sample are higher than other studies of FCC educators which found closer to 50% of respondents reporting these healthy behaviors,¹⁵ compared to the 70-77% we found in our study. This difference may be due to timing; the previous study was conducted in 2014 and our data were collected in 2021.

One limitation of our study was the relatively small sample size (n=168), however our response rate (31%) was significantly higher than several other published studies of FCC educators.¹⁵ Another limitation is that these data were collected during the height of the COVID-19 pandemic, and may have been influenced by pandemic-related factors such as lack of access to healthcare that influenced our respondents ability to seek care and receive chronic disease diagnosis and treatment.¹⁶

Public Health Implications

This study paints a picture of the chronic disease related health and behaviors of FCC professionals across the state. Future work should explore whether and how existing evidence-based chronic disease prevention and management programs, such as the National Diabetes Prevention Program and others, can be successfully implemented with FCC professionals. Additional work should also be done to explore the reasons for the elevated asthma rate found in our sample and other samples of child care professionals.

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