

## **Behind the Serving Line: What Do We Know About the Health of Those Who Feed Our School Children?**

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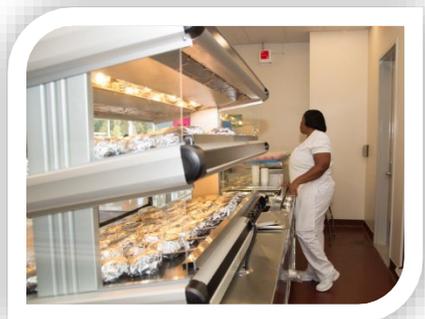
**Learning Outcome:** Participants will be able to identify the health problems and potential barriers to weight management of school foodservice employees.

**Abstract:** There is a paucity of research examining school foodservice employees' metabolic health. Louisiana's school foodservice employees and the children they serve bear a heavy burden of obesity and potential comorbidities. Approximately 27% of Louisiana children and adolescents have overweight or obese status and consume 35% of their energy intake at school. The objective of this research was to assess the health of school foodservice employees. School foodservice personnel from a metropolitan school system serving more than 50,000 meals per day completed a health and wellness survey which included the NCI Fruit and Vegetable Screener in March 2018. Employees (n=363) completing the survey were 88% female, 87% African American, and 75% were older than 45 years of age. Only 23% were classified as underweight or normal weight. In this group of predominantly non-smokers, 56% had high blood pressure, 19% had diabetes, and 23% had high cholesterol. Average daily servings for fruit and vegetable consumption were 2.5±3.6 and 1.6±2.4, respectively. In addition, employees worked 7±2 hours/day and were on their feet for 6±3 hours/day. Preliminary findings from subsequent focus groups suggested physical mobility and stress were significant barriers to optimum work performance. These barriers potentially relate to obesity, hypertension and diabetes and exacerbate health disparities. School foodservice employees who actively engage in health and wellness activities and consequently improve their metabolic health may be better equipped to model healthy behaviors and encourage children and teens to live healthier lifestyles. Clearly, intervention opportunities with this occupational group exist and should be pursued.

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# Introduction



- There is a paucity of research examining school foodservice employees' metabolic health.
- Approximately 27% of Louisiana children and adolescents have overweight or obese status and consume 35% of their energy intake at school.
- School employee wellness is an essential component of helping schools to be the healthiest they can be. School employee wellness means support for the physical, emotional, and professional well-being of all school employees, from teachers and administrators to **food service** and maintenance staff.



- The Whole School, Whole Community, Whole Child (WSCC) model focuses its attention on the child, emphasizes a school-wide approach, and acknowledges learning, health, and the school as being a part and reflection of the local community.

# Objectives

1. Assess the health of school foodservice employees using quantitative (survey) and qualitative (focus group) methods.
2. Examine the implementation of the Evidence-Based Adult Weight Management Nutrition Practice Guidelines in order to:
  - Assess motivation for weight management, coordination of care and behavior therapy strategies.
  - Determine feasibility of use of Evidence-Based Guidelines (above) in diverse populations or settings.
  - Use focus groups for identification and evaluation of barriers to implement EBG.

## Hypothesis

School foodservice employees who actively engage in health and wellness activities and subsequently improve their metabolic health may be better equipped to model healthy behaviors and encourage children and teens to live healthier lifestyles.

## Overall Aim

To gather critical information from Louisiana school foodservice employees about personal health status, fruit and vegetable intake and perspectives, opinions, attitudes and interests in health problems, solutions to problems, and what an ideal weight management and wellness intervention would look like.

## Methods and Design

School foodservice personnel (n=363) from a metropolitan school system in Louisiana serving more than 50,000 meals per day **completed a health and wellness survey** which included the NCI Fruit and Vegetable Screener. A sample from this group was invited to participate in a Focus Group Study per the recruitment design described.

### Example Survey Questions:

Please answer Yes or No.	Yes	No
I have health/medical insurance.	<input type="checkbox"/>	<input type="checkbox"/>
I have dental insurance.	<input type="checkbox"/>	<input type="checkbox"/>
I have eye (vision) insurance.	<input type="checkbox"/>	<input type="checkbox"/>
I got my flu shot this year.	<input type="checkbox"/>	<input type="checkbox"/>
I usually eat the school breakfast meal prepared at our school.	<input type="checkbox"/>	<input type="checkbox"/>
I usually eat the school lunch meal prepared at our school.	<input type="checkbox"/>	<input type="checkbox"/>
I walk or am physically active (garden, dance other) for at least 30 minutes one time per week.	<input type="checkbox"/>	<input type="checkbox"/>
Is there a coworker who is a champion for health at your school?	<input type="checkbox"/>	<input type="checkbox"/>

2. Over the last month, how many times per month, week, or day did you eat **fruit**? Count any kind of fruit—fresh, canned, and frozen. **Do not count** juices. Include fruit you ate at all mealtimes and for snacks.

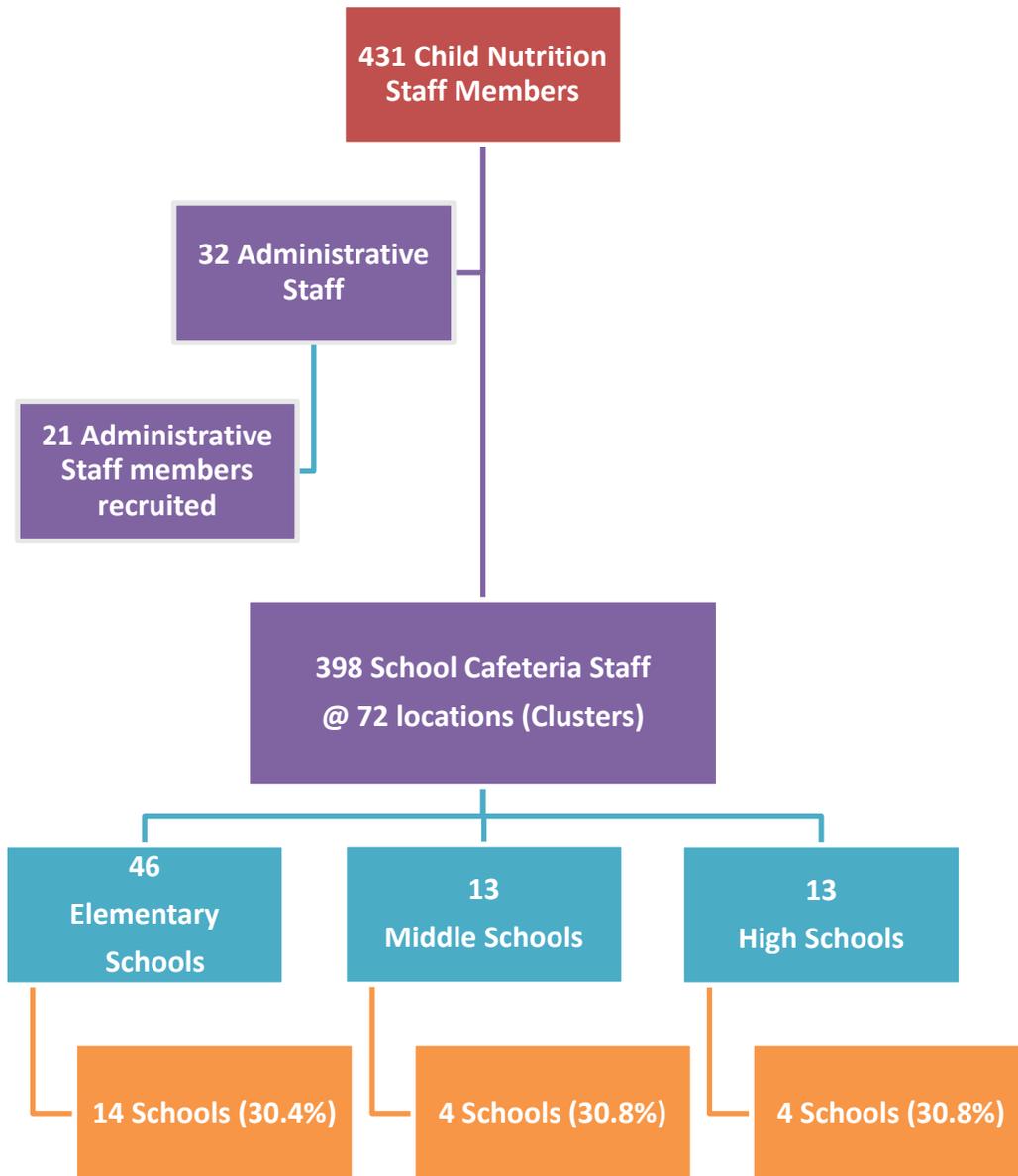
- |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> |
| Never                 | 1-3                   | 1-2                   | 3-4                   | 5-6                   | 1                     | 2                     | 3                     | 4                     | 5 or more             |
| (Go to                | times                 | times                 | times                 | times                 | time                  | times                 | times                 | times                 | times                 |
| Question 3)           | last month            | per week              | per week              | per week              | per day               |

2a. Each time you ate **fruit**, how much did you usually eat?

- |                          |                       |                       |                           |
|--------------------------|-----------------------|-----------------------|---------------------------|
| <input type="radio"/>    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     |
| Less than 1 medium fruit | 1 medium fruit        | 2 medium fruits       | More than 2 medium fruits |
| OR                       |                       |                       |                           |
| <input type="radio"/>    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/>     |
| Less than ½ cup          | About ½ cup           | About 1 cup           | More than 1 cup           |

## Focus Groups

A stratified cluster sampling design was used for recruitment. Clusters (schools) were divided into three strata: elementary, middle, and high schools. Schools were randomly chosen to reach a projected total of 125 focus group participants.



122 Child Nutrition employees from 18 schools and the administrative office participated in a focus group. Focus groups consisted of 6 – 12 people.

## **Sample Recruitment Letter/Flyer**

You have been chosen to participate in a special Focus Group project called: Kitchens Together.

Your loyalty to the students at your school does not go unnoticed. As child nutrition staff members, you work tirelessly to support your students. **We would like to support you and your health and wellness needs.**

The first step in doing so is to gather information on how we can create a healthy and happy child nutrition workforce for our School System!

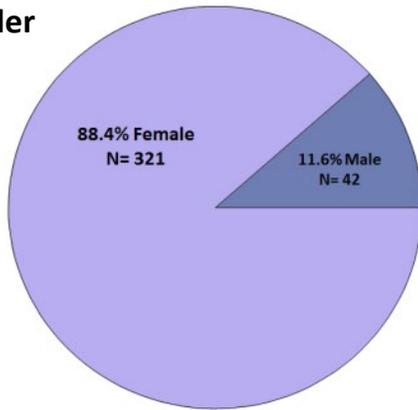
Help us learn more about the support and resources needed to help your team of child nutrition staff members feel good and be healthy. Share your ideas, concerns, challenges and comments about health, wellness, and weight management.

## **Focus Group Questions:**

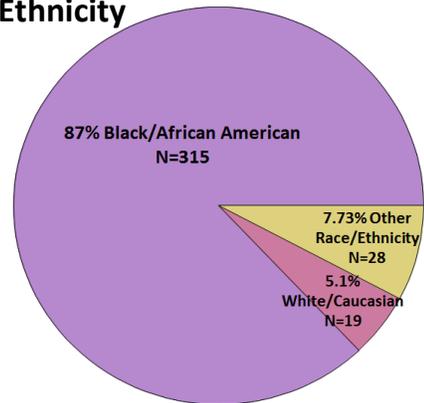
1. Can you think of any other questions that should have been asked on the survey? [Refers to the larger completed survey.]
2. What do you think are the most important health concerns of child nutrition cafeteria staff?
3. What health issues do you worry about? Why?
4. What are barriers to being healthy?
5. What does health and wellness mean to you?
6. What is healthy eating? What foods/beverages do you eat just about every day that you think are healthy? What foods/beverages do you eat that are probably not so healthy?
7. What does it mean to be physically active? How do you like to be physically active? What are the benefits?
8. Is there someone in your cafeteria who is into health and wellness?
9. What would help you take better care of yourself?

# Results

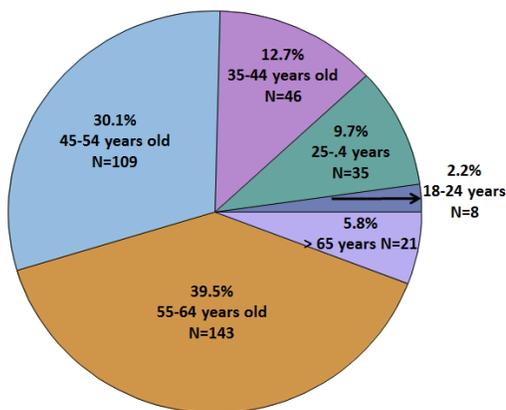
**Gender**



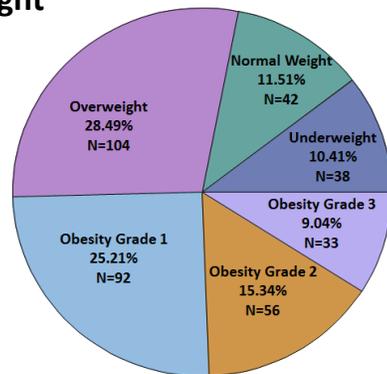
**Race/Ethnicity**



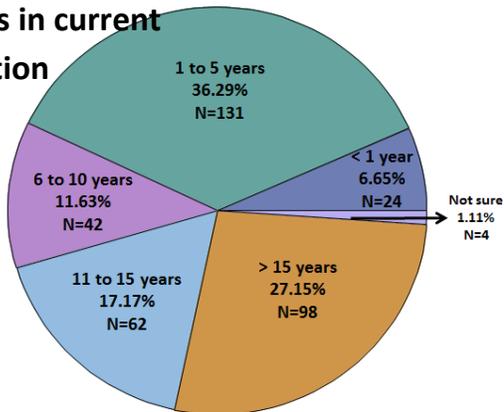
**Age**



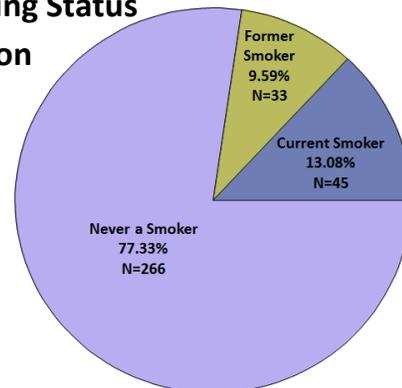
**Weight**



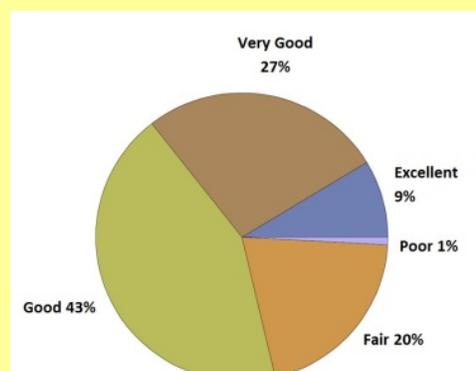
**Years in current position**

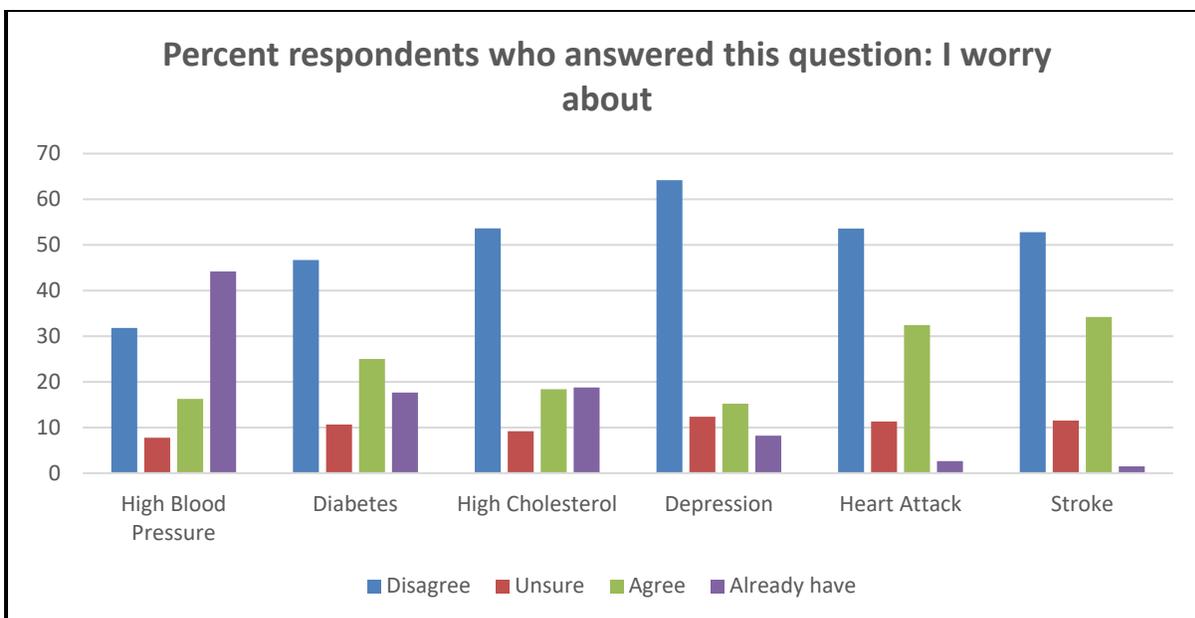
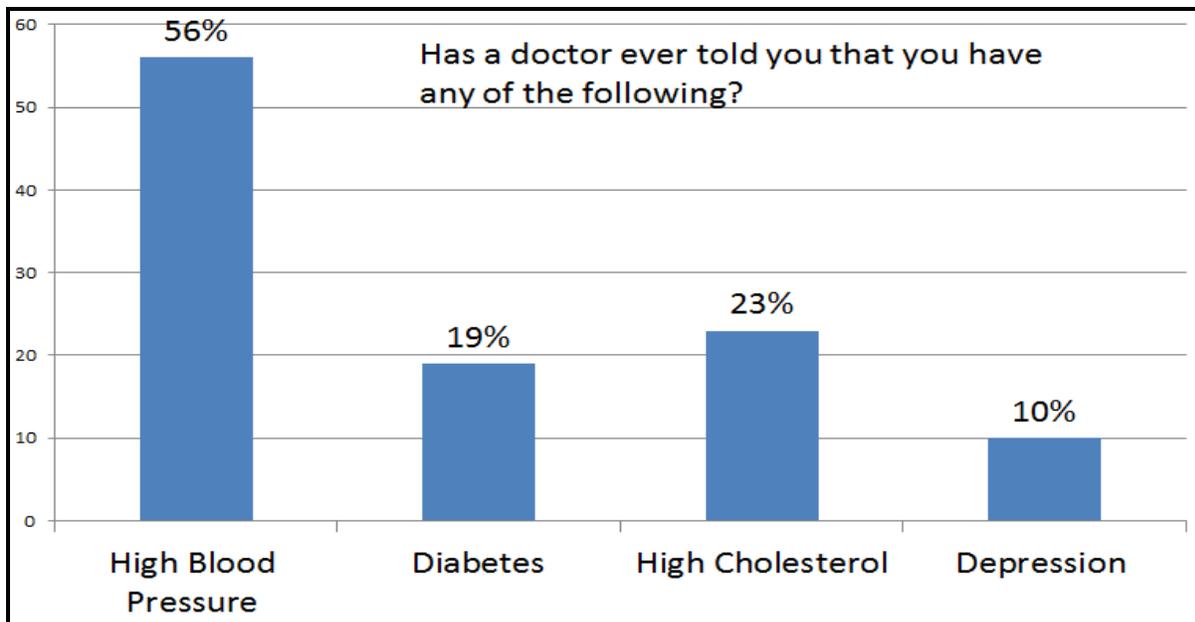


**Smoking Status**



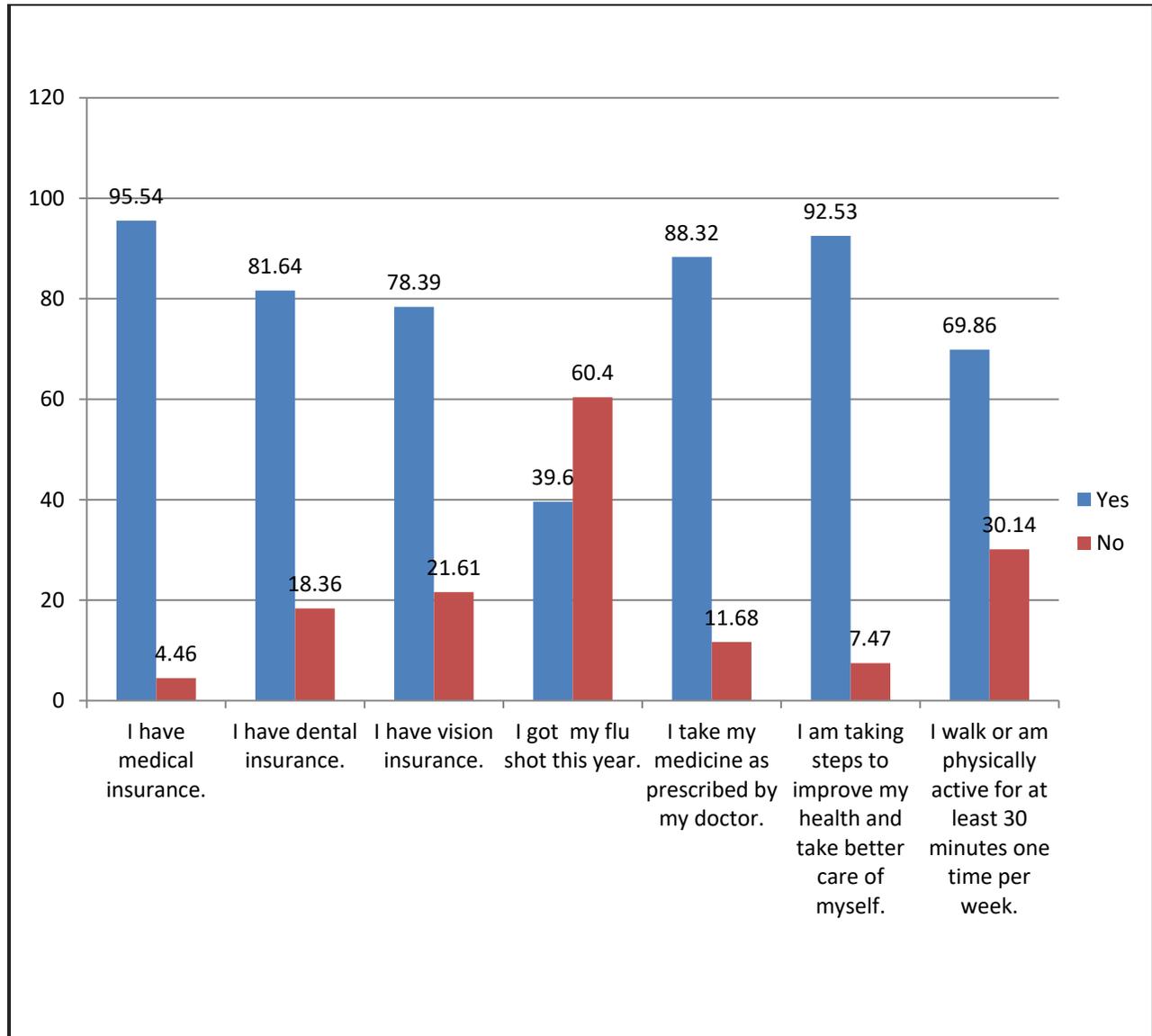
Would you say that in general your health is: excellent, very good, good, fair or poor?



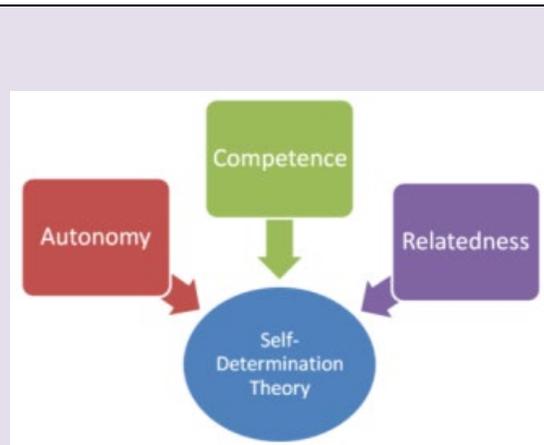


**Those who reported that they "usually eat school lunch" ate 1.11 more fruit/veg servings on average compared to those who didn't. "Usually consuming school lunch" was associated with lunchtime fruit and vegetable intake ( $p < 0.0382$ ).**

When asked about insurance and health topics, respondents reported:



## Quotations from focus group participants:



**Self-efficacy** for weight management, based on behavior change theories and models.

- I have a health problem—and I don't know it!
- It is the soda and the sweets that cause weight gain.
- I can't understand why I'm gaining weight.
- I get to huffing and puffing, so I know I need to lose weight.
- Discipline is important for weight loss.
- You know what motivates me to stay healthy? I look at my mom and dad. Both of my parents are still living. That's a blessing. They are healthy.
- When I leave work—I am so exhausted.
- Just by not consuming as much I've lost a few pounds. It's not what you eat—but how much.



**Coordination of care** with an interdisciplinary team of health professionals promotes the greatest effectiveness of MNT.

- I can't afford to pay for my health care. Income level is a barrier to being healthy.
- It is important to not be afraid to see the doctor.
- Having people encourage you to be healthy helps a lot.
- Sometimes you can't trust the insurance companies. I worry they won't cover me if they find out I have a health problem.
- I could have cancer right now. But if I find out I have it...that's when the stress comes.
- When the cardiologist talks—his message about making changes might just stick.



**Problem-solving strategies** for weight maintenance and weight loss.

- We get fruit two times a day and now I like fruit!
- I think xxx is a good role model because she is fit.
- You might hear a co-worker talk about a long walk and being healthy. It rubs off on you...when you hear someone talking about being healthy.
- Good communication helps with stress.

## Summary

Focus Group findings indicate physical mobility and stress as significant barriers to optimum work performance. These barriers potentially relate to obesity, hypertension, and diabetes, and exacerbate health disparities. School foodservice employees who actively engage in health and wellness activities and subsequently improve their metabolic health may be better equipped to model healthy behaviors and encourage children and teens to live healthier lifestyles. **Clearly, intervention opportunities with this occupational group exist and should be pursued.**



**Did You Know?** School foodservice staff at some schools may interact with a student **four** times during the day if a child participates in multiple meal programs.