

The Risk Factors and Foodborne Illnesses in Georgia & The NCHD

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Abstract

Foodborne illness is an illness that people contract from consuming contaminated foods, often in restaurant establishments. Symptoms can develop within minutes or over several days, and can include flu-like symptoms, nausea, vomiting, diarrhea, fever, or even hospitalization. To prevent foodborne related outbreaks, proper food-handling techniques must be established to mitigate or eliminate the risk factors. The leading risk factors for foodborne illness within the North Central Health District (NCHD) in 2013 was identified along with differences or similarities among the NCHD counties. The NCHD foodborne risk factors will be compared to the top five-foodborne risk factors in Georgia

Introduction

- Foodborne illness is a common disease, yet preventable occurrence that affects many Americans each year, often due to poor health practices when handling food. Each year 1 in 6 Americans become sick due to foodborne illness.
- The goal is to increase the awareness of the foodborne illnesses and decrease the risk factors associated with these illnesses through education, media promotion, and training. In increasing the awareness of foodborne illnesses, the public and food handlers can apply safe food practices within their community.
- The Top 5 risk factors in the state of Georgia are Contaminated Equipment, Improper Holding, Poor Personal Hygiene, Approved Source, and Inadequate cooking
- The most common foodborne illnesses reported in the state of Georgia in 2011 were *Norovirus* *Geneogroup II* & *Salmonella Enterica*. These illnesses were responsible for over 500 reports of sicknesses and on average about 8 hospitalizations. Both illnesses are correlated to the main risk factors.

Methods

- **Project Design:** Comparison/Contrast Design. Compared the state of Georgia's risk factors and foodborne illnesses to the North Central Health District
- **Setting:** The North Central Health District, specifically in Bibb County
- **Participants:** All food service establishments that had been inspected by The North Central Health District, and in Bibb County specifically from January 1st 2013 to December 31st 2013.
- **Instrumentation:** The Risk Type Assignment Percentage was used in determining the risk in the various food establishments. There are 3 Risk Types. The 18 compliance statuses of the state of Georgia for Food Service Establishment Inspection Standardization Report were also used.

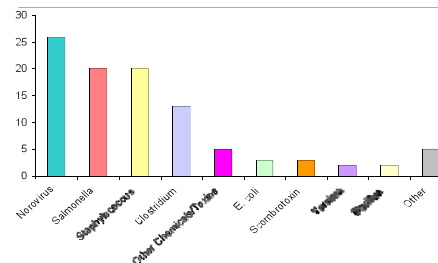
- **Data Collection:** Various data was collected from the North Central Health District and the state of Georgia on risk factors and foodborne illnesses. Historical data was collected from the Center for Disease Control and Prevention.

Results

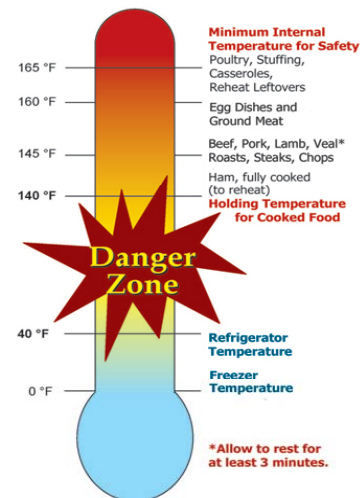
The leading risk factors of foodborne illnesses were identified through data gathered by the Environmental Health Division for the North Central Health District and Bibb County specifically from 1/1/13 to 12/31/13 based on the establishments' total percentage of violation scores. Table 1 shows the total percentage of violations within the top five risk factors. The total percentages within the NCHD and Bibb Co are compared to those of Georgia. These results illustrate a need for improvement in order to ensure the safety of the public.

Category of Risk Factors	STATE	NCHD	BIBB
Improper Holding	21.3%	20.2%	24.6%
Contaminated Equipment	24%	12.2%	11.2%
Poor Personal Hygiene	15.8%	9.7%	11.4%
Approved Source	0.7%	0.5%	0.2%
Inadequate Cooking	0.9%	0.9%	0.6%

Most Common Foodborne Pathogens in the State of Georgia, 2007, Table 2



Temperature Danger Zones



Conclusions and Recommendations

Based on the results, the percentages shown in Table 1 and Table 2 illustrate the need for increased awareness. By comparing the state to the local areas, establishments are in violation of compliance statuses. Through these violations, it can be deduced that the lack of education could play a major role. This issue could be resolved through the following recommendations:

- **Educating Establishments:** Classes offered and skill development; required standardized tests
- **Educating the Public:** Campaigns through the media and health fair events
- **Statewide Policy:** Testing should be applied to all staff handling food, and not just to the managers on duty.

Limitations

- The limitations of this project are due to the constraints on availability of information. Information of county food establishments was limited due to the accessibility of retrieving the information. Also the obtaining of public information based on personal food handling practices were limited due to the scope of the project. Time constraints also played a factor in not being able to assess every county.

References

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