Arsenic in Food: Rice – A Case Study

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Introduction

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• 2012 Sylvia Rowe Fellow
Presentation Agenda

Arsenic

The case

RQs

Theory

Media

Discussion
<table>
<thead>
<tr>
<th><strong>FDA</strong></th>
<th><strong>EPA</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitored since 1991</td>
<td>1974 Safe Drinking Water Act</td>
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<tr>
<td>Oct. 2011 follow up sample</td>
<td>Drinking water standard of 10ppb</td>
</tr>
<tr>
<td>Dec. 2008 23 ppb level of concern</td>
<td>Changed from 50ppb in 2001</td>
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Dr. Oz: One Bad Apple

• “We have discovered that apple juice can contain arsenic. Yes, arsenic.”
• “We launched an extensive investigation, testing dozens of samples from three different cities across America.”
• “Some of the best known brands in America have arsenic in their apple juice”
  – Dr. Oz Show September 2011
Consumer Reports: Arsenic in Your Juice

• 10% have arsenic levels that “exceeded federal standards for bottled and municipal water”
• Blamed on pesticides and agricultural practices
• Call for FDA to set levels to 3ppb
• Children most vulnerable
  – Consumer Reports January 2012
Consumer Reports: Arsenic in Your Food

• “In virtually every product tested, we found measurable amounts of total arsenic in its two forms”
• Warnings concerning rice from Arkansas, Louisiana, Missouri, and Texas
• Higher levels in brown rice
• People who ate rice had arsenic levels that were 44% greater than those who had not
• No federal limits exist for arsenic in most foods
  – Consumer Reports November 2012
Research Questions

If the FDA and EPA have regulated these threats for years, what has changed?

Why is this reemerging as a public health threat?

H1: Media exposure to misinformation generates concern
Constructing Risk

- Actual
- Emotional
- Political
- Misconstrual
February 16, 2012

NEW THIS MORNING
LexisNexis Academic

2010

- All news
- 5 hits

2011

- All news
- 10 hits

2012

- All news
- 100 hits
Discussion

Health misinformation impedes decision making

Subject matter experts need to effectively message about true risks
Competing Messages

Media Messages
- Sensationalistic
- Incomplete
- Accessible

Government Messages
- Technical
- Lacking trust
- Inaccessible
Best Practices in Risk Communication
National Center for Food Protection and Defense
www.fpd.umn.edu

Strategic Planning
- Plan Pre-event Logistics
- Coordinate Networks
- Accept Uncertainty

Proactive Strategies
- Form Partnerships
- Listen to Public Concern
- Be Open and Honest

Strategic Response
- Be Accessible to Media
- Communicate Compassion
- Provide Self Efficacy

Continuously evaluate and update crisis plans
Conclusion

• Arsenic can be present in grains, fruits, and vegetables (hence, not only present in juice or rice)
• Threshold levels matter
• Not all issues warrant policy action
  – Changes come at a cost and do not guarantee desired outcomes
• Media is a policy influencer
References


References


