

Social Media 101 – What Food Companies Need to Know

Dr. Ben Chapman
NC State University
September 23, 2016





got to be
NC
AGRICULTURE

Vegetarian	Non-Vegetarian	Specialty
Vegetarian \$10 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.	Non-Vegetarian \$12 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.	Specialty \$14 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.
Side \$5 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.	Side \$5 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.	Side \$5 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.
Drink \$2 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.	Drink \$2 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.	Drink \$2 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.
Small \$8 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.	Small \$8 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.	Small \$8 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.
Medium \$10 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.	Medium \$10 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.	Medium \$10 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.
Large \$12 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.	Large \$12 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.	Large \$12 A 100% grass-fed burger with cheddar, tomato, onion, and pickles on a sesame seed bun.



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- Sustainable Family Farm

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NATURAL Grass Fed Burgers and Cut Fries

Let Us Cater
Your Next Event





Ben Chapman
@benjaminchapman

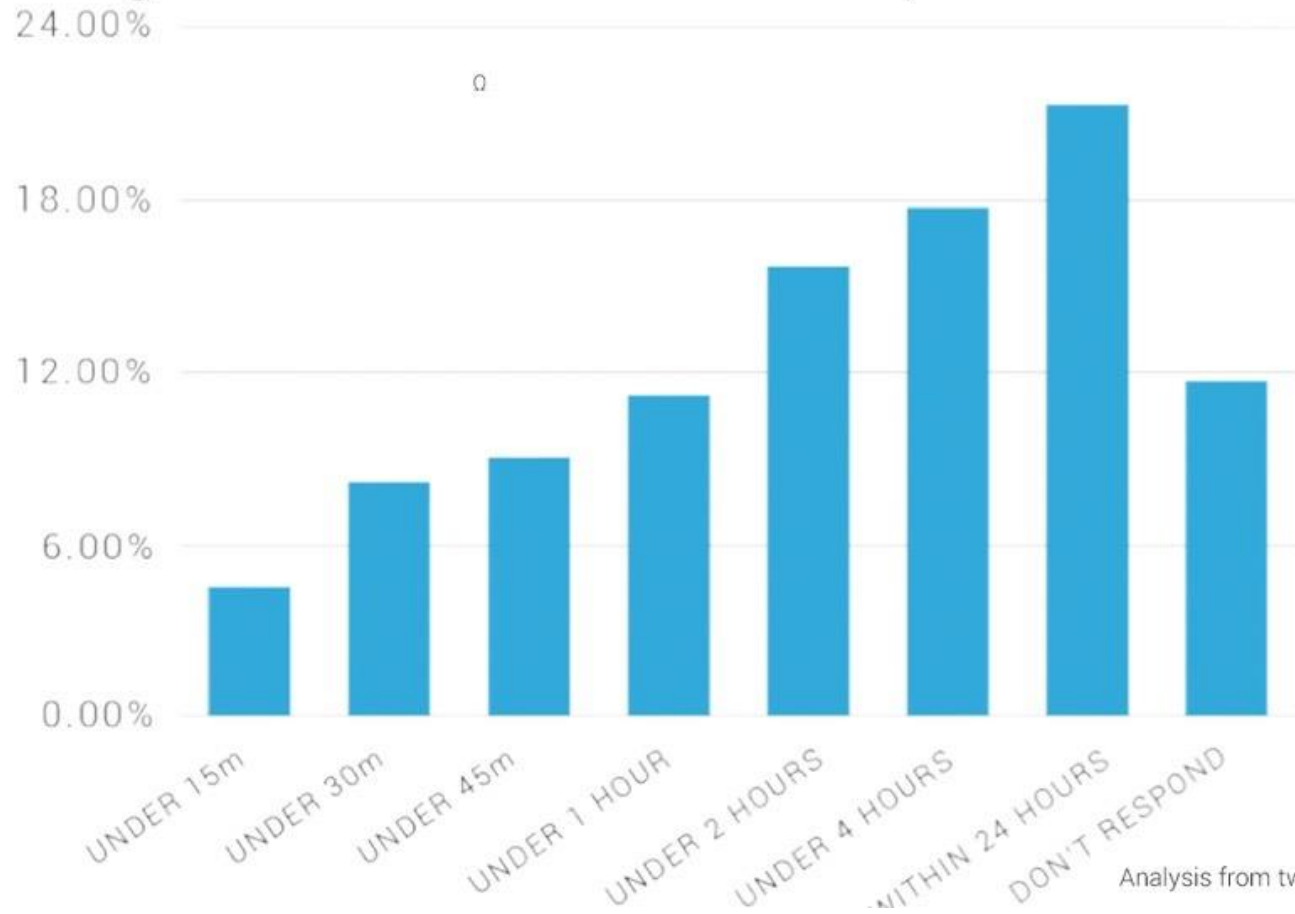
.@RareEarthFarms can't find the info on your website - where do you folks process/pack your meat? Is it in your own facility?

4/29/16 7:19 PM

0 RETWEETS 0 LIKES




How Long Does it Take Brands to Respond to Tweeters?



Analysis from tweets via Brandwatch

Food carries risk



A hand in a blue suit sleeve holds a transparent rectangular box. Inside the box is a list of five qualities. The background is a solid blue gradient.

Empathy and caring
Competence and expertise
Honesty and openness
Commitment
Accountability

Reynolds BJ. when the facts are just not enough: Credibly communicating about risk is riskier when emotions run high and time is short. Toxicology and Applied Pharmacology 2011; 254: 206-14

Underlying research, publications and needs assessment

- Review paper for social media approaches (Chapman et al., 2014)
- Survey of a sample of influential online moms (n=109) (Raymond et al, 2016)
- Systematic review of social media and infectious disease communications (Overbey et al., 2016)
- Media analysis of posts related to school outbreaks (Overbey et al. 2016)



PEER REVIEW

Potential of social media as a tool to combat foodborne illness

Potential of social media as a tool to combat foodborne illness

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food safety; risk
communication; foodborne
illness; behavior change

Abstract

The use of social media platforms, such as Facebook and Twitter, has been increasing substantially in recent years and has affected the way that people access information online. Social media rely on high levels of interaction and user-generated content shared through established and evolving social networks. Health information providers must know how to successfully participate through social media in order to meet the needs of these online audiences. This article reviews the current research on the use of social media for public health communication and suggests potential frameworks for developing social media strategies. The extension to food safety risk communication is explored, considering the potential of social media as a tool to combat foodborne illness.

INTRODUCTION

Nine tweets by local newspapers in Northern Germany on 20th May 2011 signaled on social media the start of a tragic outbreak caused by *Escherichia coli* O104:H4 that resulted in more than 4,000 illnesses and 50 deaths in 16 countries.^{1,2} In the following six weeks, more than 450,000 tweets related to the outbreak were tracked, produced by 54,381 distinct users.²

In 2012, Beef Products, Inc. (BPI) recalled from public perception issues related to lean finely textured beef, which commonly became known as 'pink slime'. Despite coverage in the New York Times in 2009 and on ABC TV in 2011, public outcry over the product did not force buyers of the product (largely retail and food service companies and the US Department of Agriculture's school nutrition program) to respond until online populations, largely young mothers, began sharing concerns through social media networks.³⁻⁵ Over 67,000 Facebook postings, retweets and Instagram posts of just one article created a collective online movement resulting in policy changes, lawsuits and the closure of beef plants.⁵⁻⁷

The popularity of social media presents an opportunity for disseminating food safety and health risk information broadly. Social media are primarily mobile and web-based applications that allow users to interact in various ways, such as sharing photos and video, and instant

messaging. Millions of people now participate in social media, such as Facebook, YouTube, Instagram, Pinterest and Twitter. As of September 2013, an estimated 86% of adult Americans aged 18 years and older used the Internet; of the adult Americans online, 73% report that they used a social networking site of some kind.⁸ This is similar to the number of users in other developed countries.⁸

Social media influences how individuals obtain information, and the amount of time spent on social media applications is rising at a rate three times faster than the increase of time spent on the Internet overall.¹⁰⁻¹² In addition, the increasing use of smart phones and other mobile devices enables easy access to online resources, including social media.¹³

Health information providers cannot ignore the changing behavior of information seekers. In 2012, 72% of Internet users said that they looked online for health information.¹⁴ In an earlier survey, 29% of Internet users reported that they look online for information about food safety or recalls.¹⁵ To help meet the needs of these online audiences, information providers must 'go where the people are'¹⁷ and provide messages tailored to the environment of social media.

This article reviews the current research on the use of social media for public health communication and explores its potential for addressing food safety risks.



According to Ketchum, this population generates up to 1.7 billion conversations about food weekly and do not see themselves as activists with entrenched beliefs around issues; they are an interested public. They have expectations that food companies work interactively to engage the eating public in dialogue and share information proactively and transparently.

here all the time
age
cipate the issues
e a story and tell it
e the technical people,
the PR people do it





original superfood
fruit smoothie blend



odwalla

smoothie

not from concentrate



mango tango
fruit smoothie blend



odwalla

smoothie

not from concentrate



strawberry c monster
flavored 4 juice smoothie blend



odwalla

smoothie

not from concentrate



Walkerton



safe plates







EionHeart «» @king_Bowww_5

9/1/16

Yall know we're hepatitis free right?

-Sincerely, Tropical Smoothie in Central Park



4



illMob 🔥 @illMobLit

9/6/16

smoothie king be too good but that hepatitis A outbreak in Virginia make me want to throw up every ounce 😂



James @maryjamesblige

8/20/16

I'd still rather get Hepatitis A then go to Smoothie King

Eric Kane 13News @13EricKane

[#BREAKING](#): VA Health Dept says anyone who consumed frozen strawberries from Tropical Smoothie in last 50 days is at risk of hepatitis A.



4



Cason Spencer @Cas0nspencer

8/31/16

Me: did you hear about the hepatitis A breakout from smoothie king?

@Tapscottsville : "WHO SHIT ON THEM BERRIES"



5



King Carabiner @kingcarabiner

9/11/16

Hepatitis A Outbreak Linked to Strawberries at Smoothie Chain: About 89 people have been sickened, many of them cus... [nyti.ms/2cjAjrj](https://www.nytimes.com/2016/09/11/us/health/hepatitis-a-outbreak-smoothie-king.html)

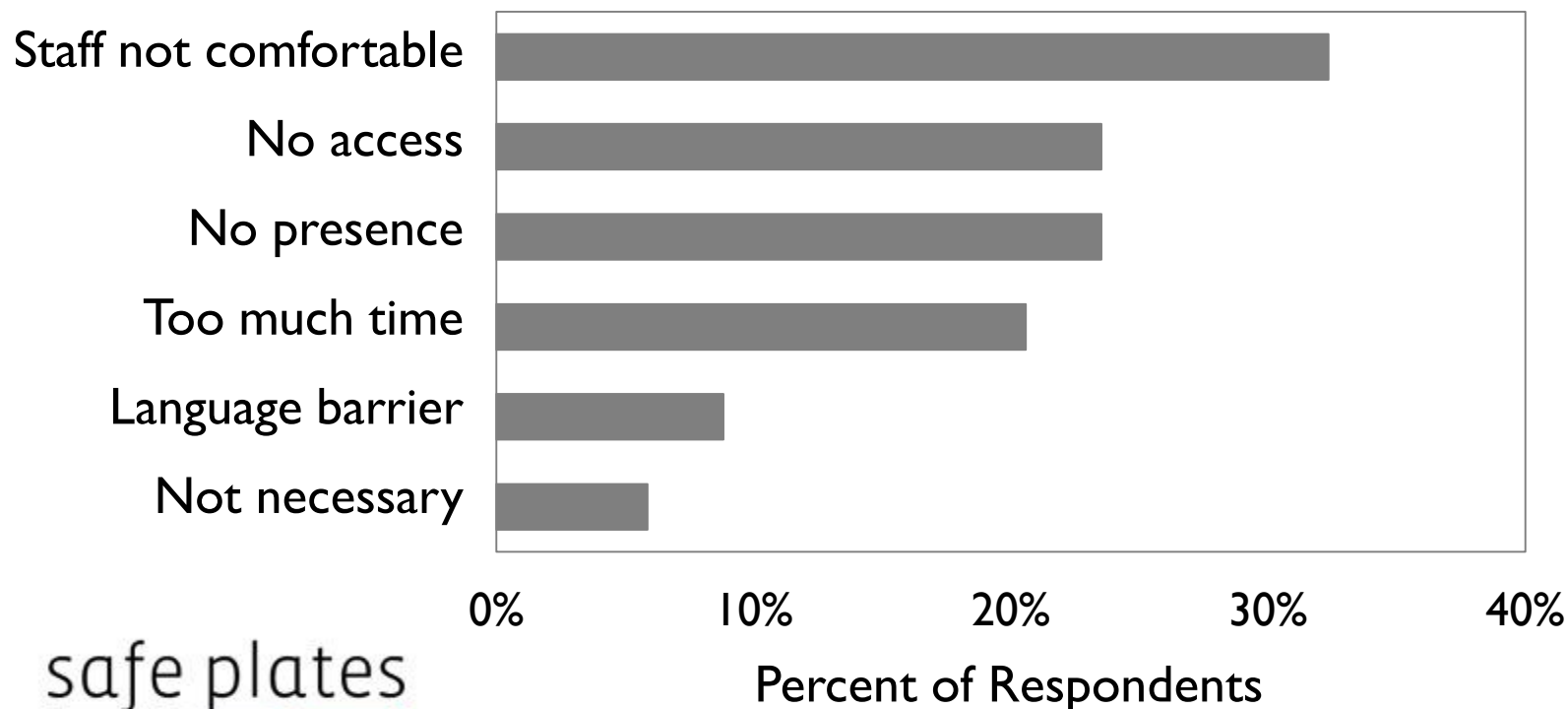




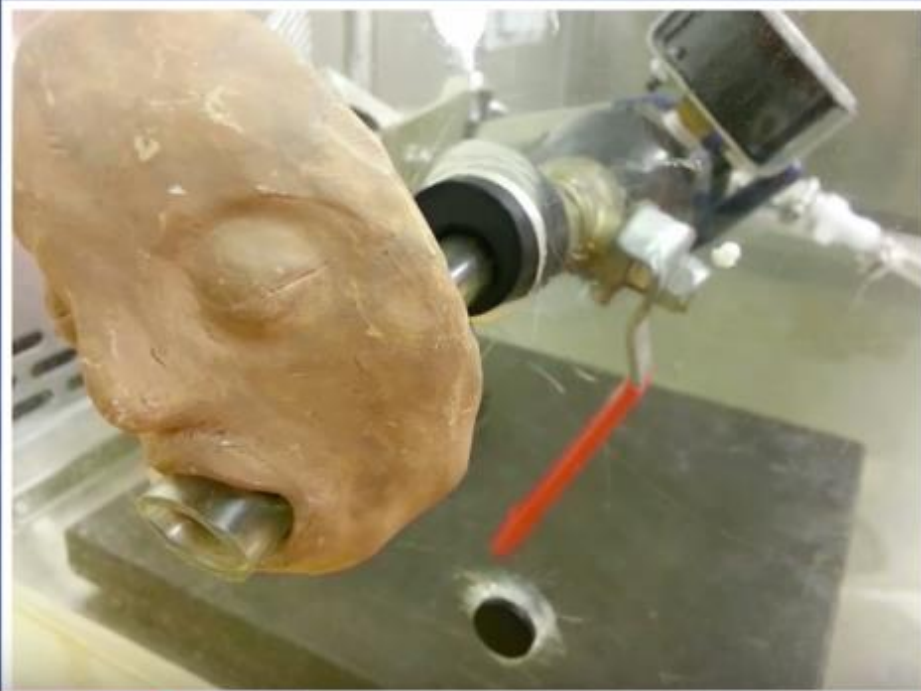
Social Media Use

40% said their department used social media to provide health information (N = 94)

Barriers to Social Media Use (N = 34)







Credit: Grace Tung-Thompson



Meet the Machine That Barfs

SciShow  [Subscribe](#) 3,290,893


257,072

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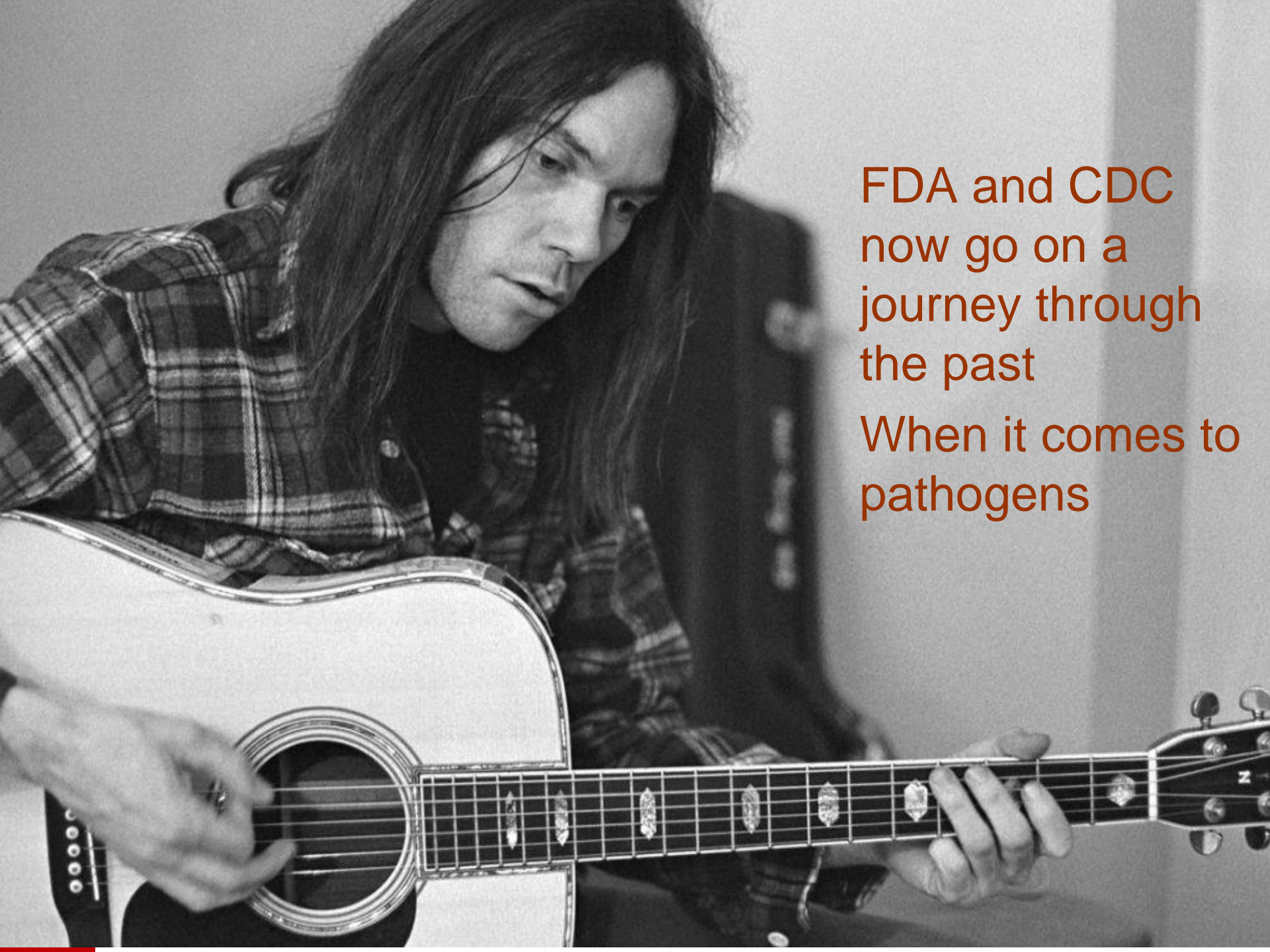
Max Thrust 7 months ago
They just had to give it an extra-creepy face.
Reply • 264  
[View all 11 replies](#) ▾



supersmily5SS5 7 months ago
+Max Thrust What? O...kay.....
Reply •  



Angela Siu 2 weeks ago
+Max Thrust Well they're scientists, not artists. Thankfully
Reply •  



FDA and CDC
now go on a
journey through
the past

When it comes to
pathogens

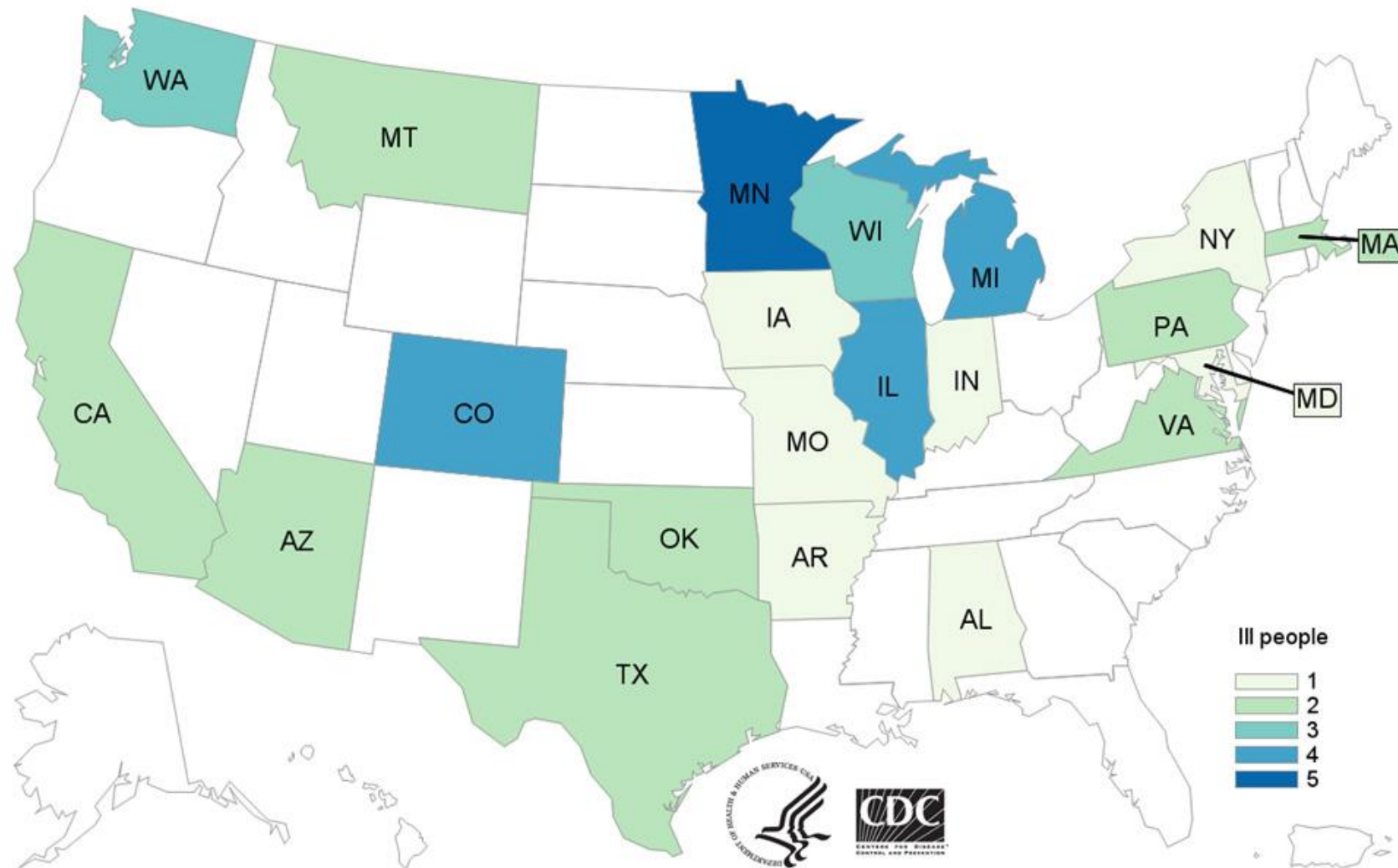


sweet

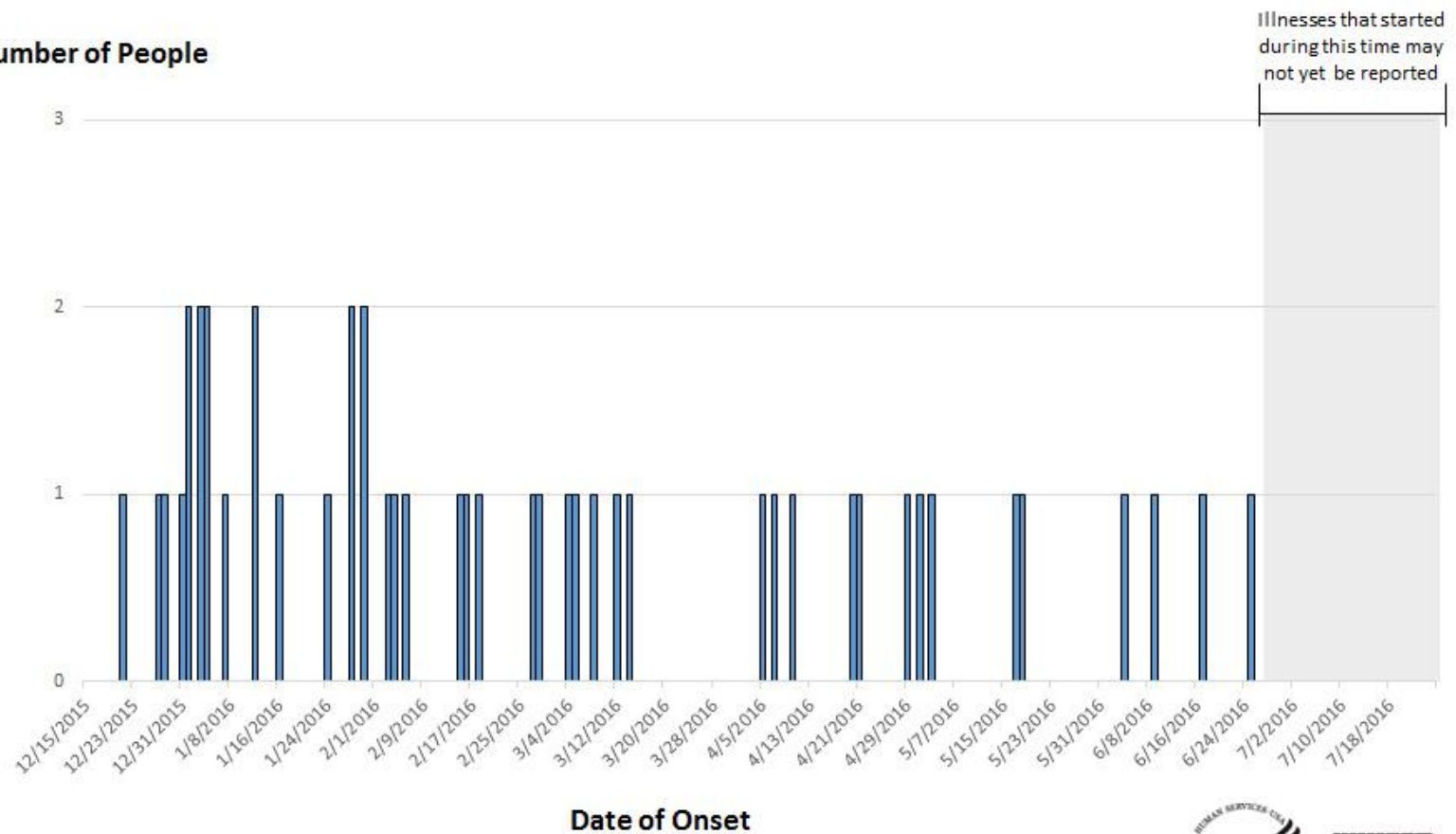
SMELL OF SUCCESS

From trusted and traditional to inventive and inspired, we've got lots of delicious recipes for you.

SEE RECIPES



Number of People



The Whole Genome Sequencing (WGS) Process

WGS is a laboratory procedure that determines the order of bases in the genome of an organism in one process. WGS provides a very precise DNA fingerprint that can help link cases to one another allowing an outbreak to be detected and solved sooner.

Bacterial Culture



1. DNA Extraction

- 1 Scientists take bacterial cells from an agar plate and treat them with chemicals that break them open, releasing the DNA. The DNA is then purified.

3. DNA Library Preparation

- 3 Scientists make many copies of each DNA fragment using a process called polymerase chain reaction (PCR). The pool of fragments generated in a PCR machine is called a "DNA library."

4. DNA Library Sequencing

- 4 The DNA library is loaded onto a sequencer. The combination of nucleotides (A, T, C, and G) making up each individual fragment of DNA is determined, and each result is called a "DNA read."

5. DNA Sequence Analysis

DNA Reads

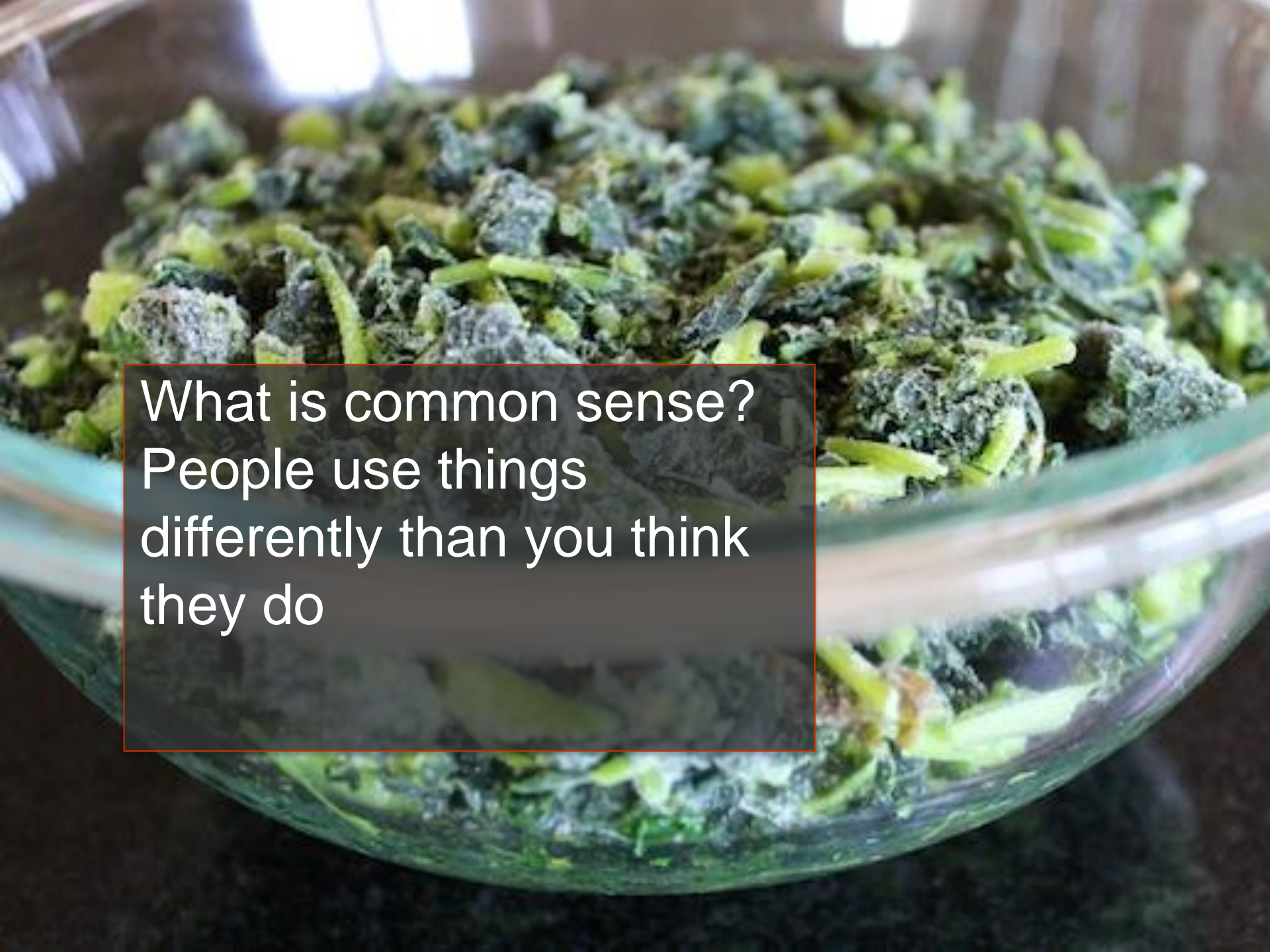
CCTGGCGGCTCCAA TTGGCCTTGAATCG
CCTATTCCTTGGCCTT
GCGGCTCCAAATGCT CTTGAATCGCGAA
GCCTCCAAATGCTTAT

Reconstructed Genome

2. DNA Shearing

- 2 DNA is cut into short fragments of known length, either by using enzymes "molecular scissors" or mechanical disruption.

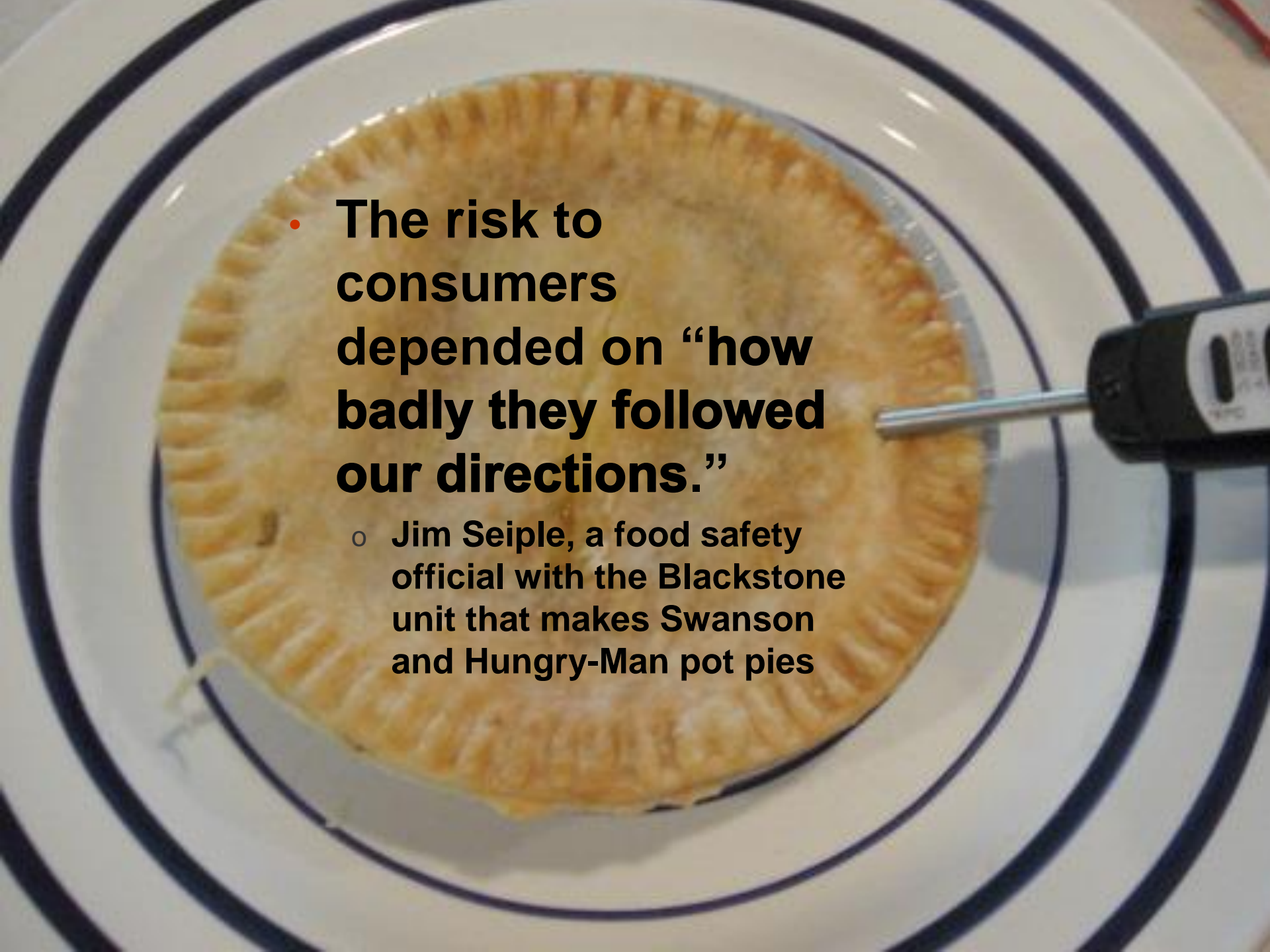
- 5 The sequencer produces millions of DNA reads and specialized computer programs are used to put them together in the correct order like pieces of a jigsaw puzzle. When completed, the genome sequence containing millions of nucleotides (in one or a few large pieces) is ready for further analysis.

A close-up photograph of a glass bowl filled with a green, textured salad or vegetable mixture. The mixture appears to be finely chopped or shredded, with various shades of green and some darker, possibly cooked or wilted, pieces. The bowl is made of clear glass, and the background is dark and out of focus.

What is common sense?
People use things
differently than you think
they do

- **The risk to consumers depended on “how badly they followed our directions.”**

- **Jim Seiple, a food safety official with the Blackstone unit that makes Swanson and Hungry-Man pot pies**







Is a consumer advisory for handling cantaloupes prudent?

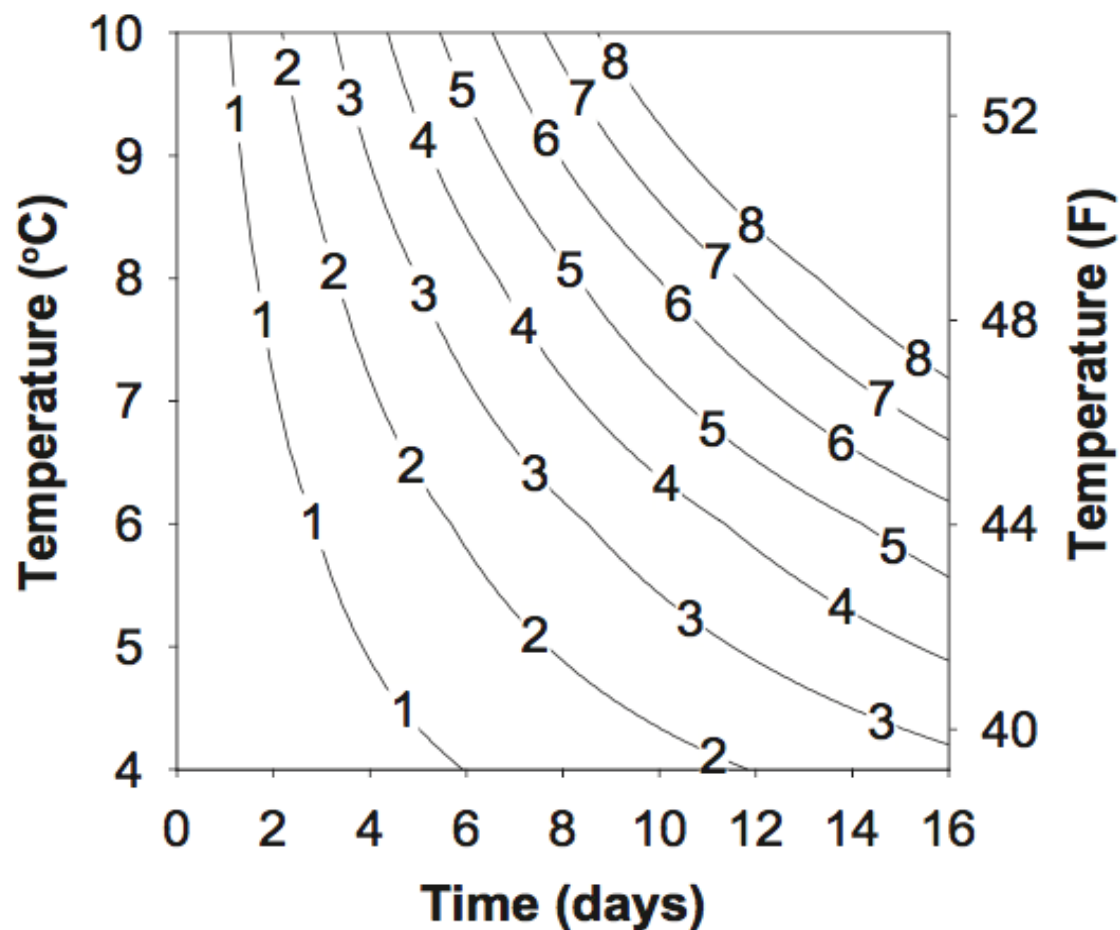
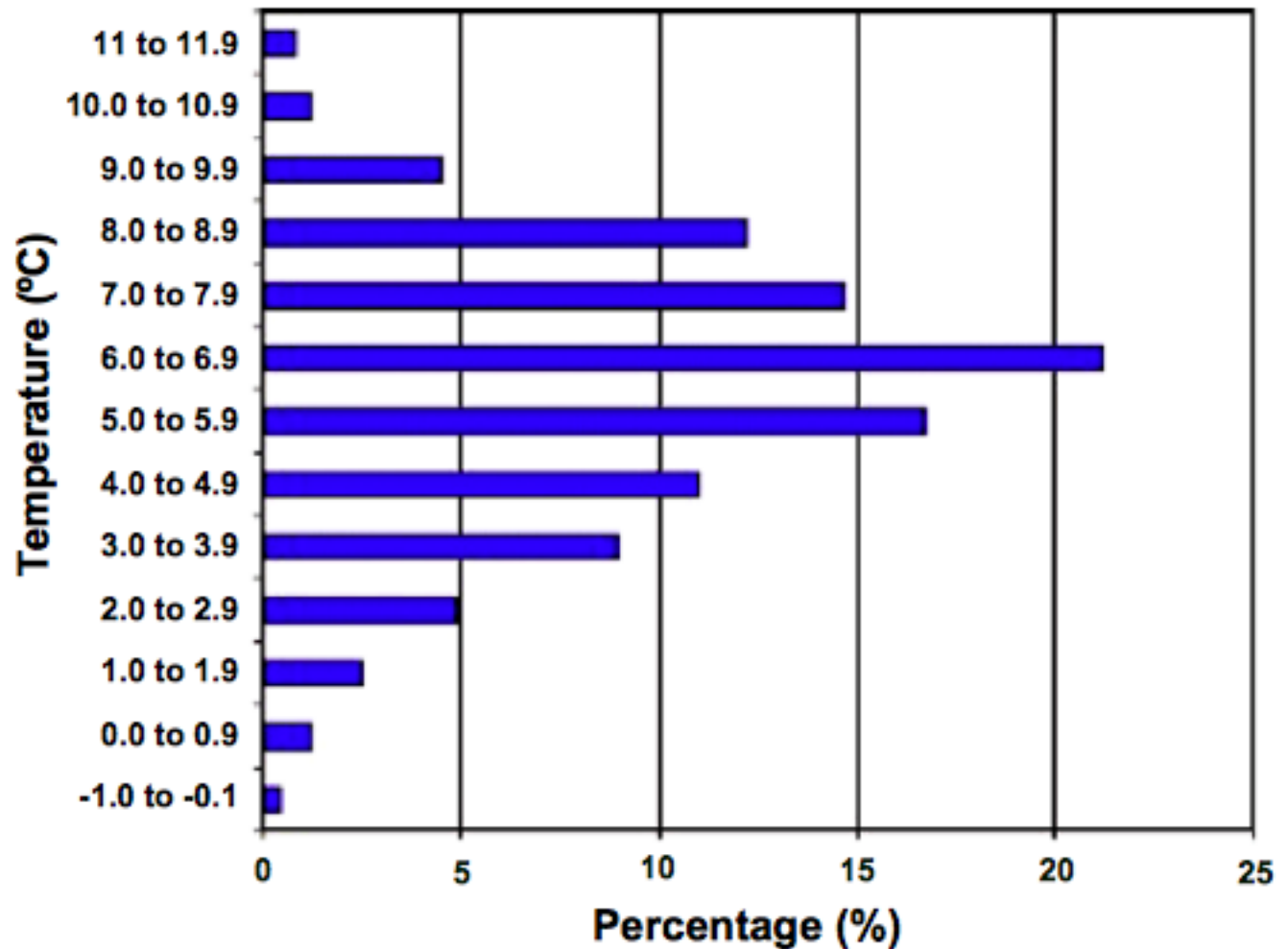


Fig. 3. Effect of storage time (x-axis) and temperature (y-axis) on the predicted log CFU/g increase of *L. monocytogenes* populations (contour lines) on cut melons.

Kosa, 2007: 11% of all respondents had a thermometer



California cantaloupes:

<http://www.californiacantaloupes.com/our-fruit/storing-and-preparing>

University scientists recommend that melons should be washed under running tap water before cutting. If desired, a scrub brush can be used on the melon rind. Melons, like all fresh produce, must be strictly separated from all potential contact with food items such as raw chicken, meat, seafood and eggs. Food preparers should thoroughly wash their hands, utensils, countertops and cutting boards. Do not store cut cantaloupe at room temperature for any length of time. Sliced melon should be stored in the refrigerator until it is ready to be eaten.



Store cantaloupes in the refrigerator but do not freeze.



Cut cantaloupes only when you are ready to eat



Cut cantaloupes should be wrapped tightly in plastic wrap and put back in the refrigerator immediately





Do we just trust:
That the company is doing the
right thing?
That the regulators are doing the
right thing?



Kathy Clark, AUTHOR @93NightWriter

16h

Guess either they had the wrong root cause / badly devised countermeasures. Bottom line sad day for fans.

chron.com/business/artic...



18



18



Roderick M. Brown @brownboyart

16h

Why is there always a recall on Chocolate Chip Cookie Dough Ice Cream??? [#BlueBellRecall](#)



1



Lester Duhé @LesterDuhe

16h

Today's Minute with [@star_lightw](#): [@LoyolaWolfPack](#) hires golf coach, protests in [#Charlotte](#), Horror Film Fest, [#BlueBellRecall](#) & more! WATCH:

The Loyola Maroon @Loyola_Maroon

In today's Maroon Minute, [@star_lightw](#) talks about the protests in Charlotte, [@Loyola_NOLA](#)'s new golf coach & more!

loyolamaroon.com/686/news/686/ pic.twitter.com/8FQGZKRzZf



4



Autumn Lakeland @AutumnLakeland

18h

Listeria in your ice cream? [#ThursdayThoughts](#)

[#GOVEGAN](#)

wfaa.com/news/health/li...



1



2

BLUE BELL

SUPPLIER: NO LISTERIA IN PRODUCT BEFORE GOING TO BLUE BELL





5 cases of
E. coli O157
Seattle July



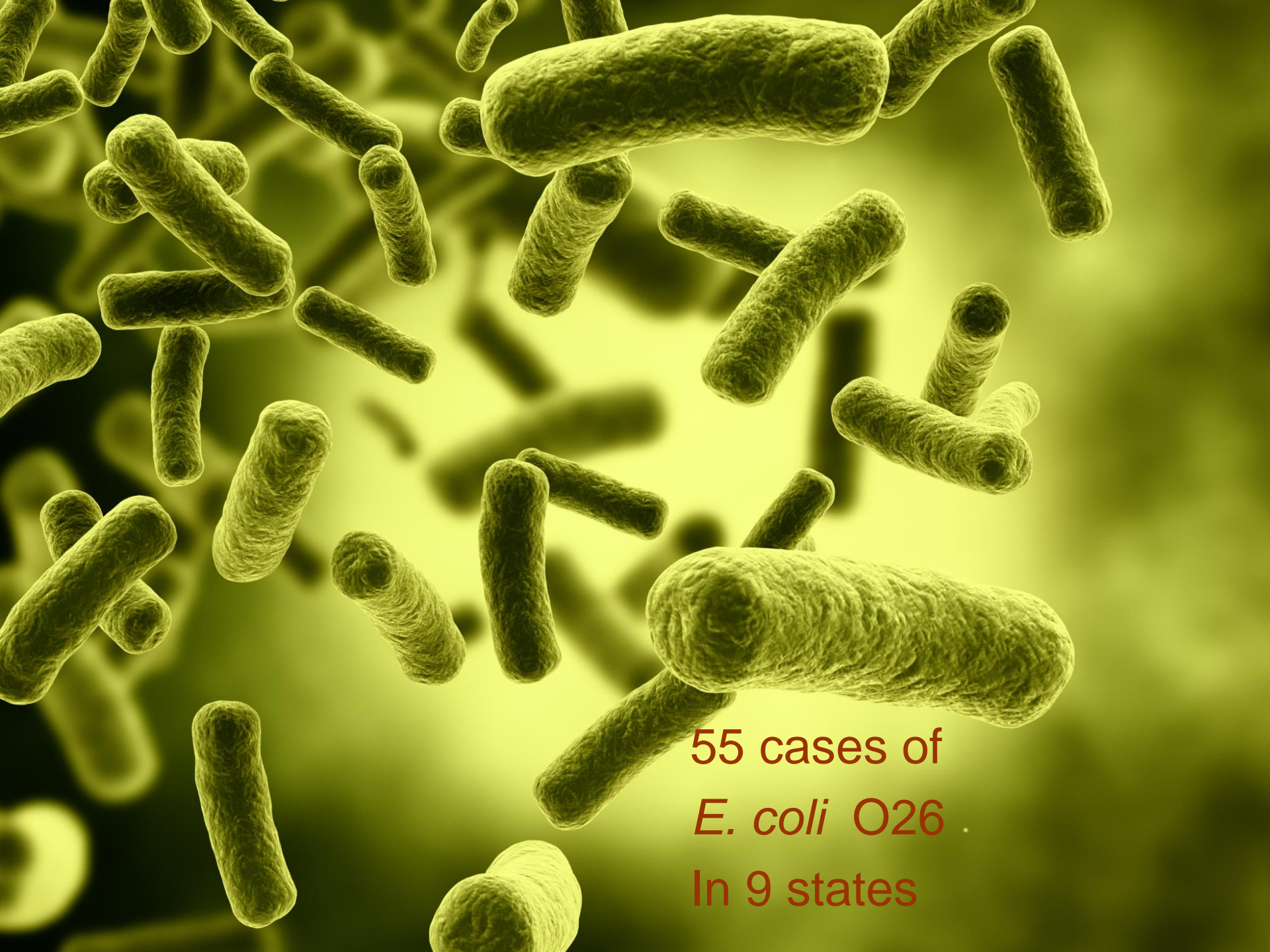
Salmonella Newport
64 illnesses multiple outlets

NOROVIRUS:

YOU DON'T WANT IT.

234 illnesses linked to CA chipotle





55 cases of
E. coli O26
In 9 states



5 cases of
E. coli O26
In 3 states

NOROVIRUS:

YOU DON'T WANT IT.

360 illnesses linked to Boston chipotle



ANALYSIS: Chipotle is a victim of corporate sabotage... biotech industry food terrorists are planting e.coli in retaliation for restaurant's anti-GMO menu



Wednesday, December 23, 2015

by [Mike Adams](#), the Health Ranger

Tags: [Chipotle e.coli outbreak](#), [corporate sabotage](#), [biotech bioterrorism](#)



Facebook (121,563)



Twitter



effective July 1, it will offer hourly workers paid sick leave, paid vacation and tuition reimbursement -- benefits that were previously only on offer to salaried workers.

CLOSED

11:00AM - 10:00PM
DAILY

Chipotle
MEXICAN GRILL





Stephani
this is tru

FREE
Today or
Chipotle
- you'll r
COUPON

5 Commer

Share

View 1 mo



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As of

Th
try

Mor
burr

Chipotle illness @benjami...



Eat My TV @eatmytv 43m

Chipotle to Employees: Do Not
Come to Work If You Are Sick
eater.com/2016/2/8/10940...

Details



Izzy @lizzy_tweets 44m

@71LaAlina if I do get sick my
medical records will say "Chipotle
and Adriana induced illness"

View



Gillian L-G de M @GLGdeM 1h

Funny how everyone gets over their
illness fears when there are free
burritos. Just as safe as yesterday,
but longer lines today. #Chipotle

Details



metrofudge @metrofudge 1h

Ever since Chipotle has had these
smug "We use *pronounces "bee-
nz" slowly*" ads I've heard nothing
but food illness related stories.

Details



Jordie Poblete @jordiepoblete 5h

Chipotle to Employees: Do Not
Come to Work If You Are Sick
bit.ly/1PEmw8O #WorthyShare

Details



Francis Beecher @Francis_Beecher 7h

Overview of Chipotle's outreach to

Chipotle @benjaminchapman



ty @TyJoVi 2m

Idk why I expected the chipotle line
to be short at 2

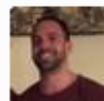
Details



✨ **wanheda** @rooney_maras 2m

The workers at chipotle must love
the free burrito deal...

Details



Eric Bielich @EB9 2m

Mile-long line at Chipotle. Go figure,
they give out a Free Burrito coupon
& every cheapskate in town comes
running to redeem it.

Details



Jim Kent @kerkey55 2m

After going to Qdoba for all this time,
I've now realized how much better it
is than Chipotle.

Details



Anthony Randall @tonyxrandall 2m

@Trvshlvr RR @CardozaGab for
real though it's all about cheese
pizza with sriracha or chipotle
tabasco #Luv4Social #luv4pizza

View



Hollyanne @hcraiggg 2m

That's chipotle was too good 🍕👍
[@irigoyenvaleria](#)

Details

Page

a free

OUR FOOD SAFETY ADVANCEMENTS

FIRST CHIPOTLE RESTAURANT
Denver, Colorado





MENU NUTRITION **FOOD WITH INTEGRITY** WHAT'S HAPPENING CATERING DELIVERY TALK TO US



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3. FARMER SUPPORT & TRAINING



4. ENHANCED RESTAURANT PROCEDURES





original superfood
fruit smoothie blend



odwalla

smoothie

not from concentrate



mango tango
fruit smoothie blend



odwalla

smoothie

not from concentrate



strawberry c monster
flavored 4 juice smoothie blend



odwalla

smoothie

not from concentrate

New information has legs

Old problems arising again is interesting

People see through marketing (at least on social media)

The End