

# *Vibrio parahaemolyticus (Vp)*

## *Vp Control Plan Requirements*



NYSDEC, Division of Marine Resources  
Bureau of Shellfisheries



Department of  
Environmental  
Conservation

## *Vibrio parahaemolyticus* (Vp)

- Naturally occurring bacterium
- Not related to pollution or sewage sources
- Reproduces rapidly under warm conditions (air and water)
- Causes gastrointestinal illnesses in humans; shellfish, lobsters, crabs
- Found worldwide in brackish and coastal marine waters



# FOOD SAFETY

## PROGRESS REPORT FOR 2013

Disease Agents	Percentage change in 2013 compared with 2006–2008	2013 rate per 100,000 Population	2020 target rate per 100,000 Population	CDC estimates that...
<i>Campylobacter</i>	 13% increase 	13.82		For every <i>Campylobacter</i> case reported, there are 30 cases not diagnosed
<i>Escherichia coli</i> O157	 No change	1.15		For every <i>E. coli</i> O157 case reported, there are 26 cases not diagnosed
<i>Listeria</i>	 No change	0.26		For every <i>Listeria</i> case reported, there are 2 cases not diagnosed
<i>Salmonella</i> 	 No change	15.19		For every <i>Salmonella</i> case reported, there are 29 cases not diagnosed
<i>Vibrio</i>	 75% increase 	0.51		For every <i>Vibrio parahaemolyticus</i> case reported, there are 142 cases not diagnosed
<i>Yersinia</i>	 No change	0.36		For every <i>Yersinia</i> case reported, there are 123 cases not diagnosed



U.S. Department of  
Health and Human Services  
Centers for Disease  
Control and Prevention

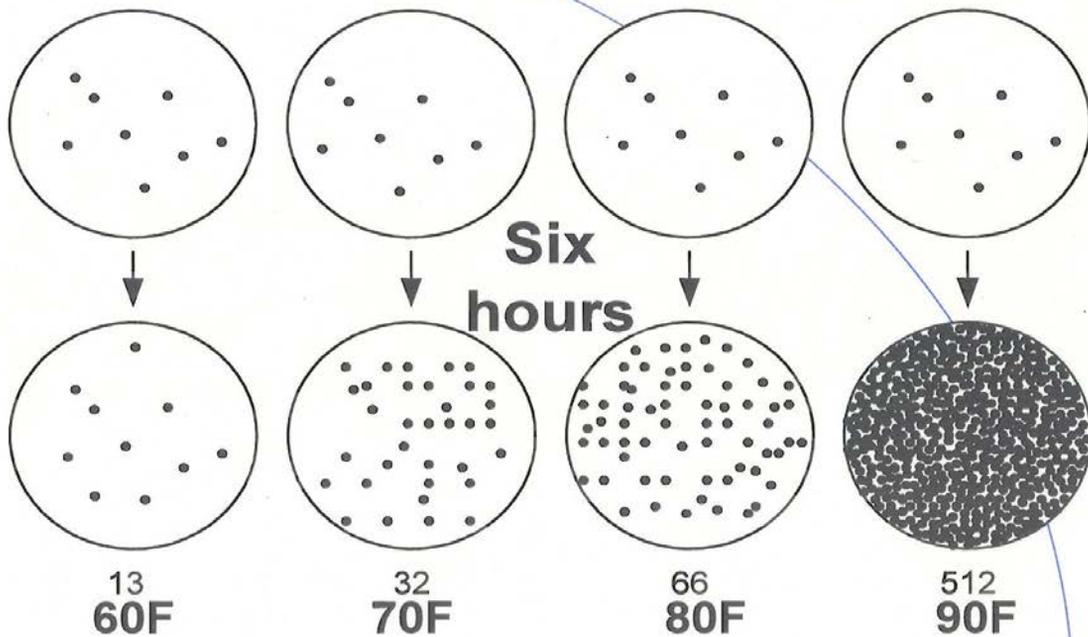
For more information, see <http://www.cdc.gov/foodnet/>

Preliminary FoodNet 2013 Data

# Temperature Triggers affecting Vp Levels in Shellfish

- High water temperatures can increase Vp levels in shellfish
- High air temperatures promote rapid growth of Vp in shellfish after harvest
- Post harvest handling - Critical to controlling Vp levels in shellfish
- Immediate cooling of shellfish reduces post-harvest growth of Vibrio bacteria

*Vibrio parahaemolyticus* growth at various temperatures



# Vp Control Plan – NSSP Requirement

**Goal:** Reduce the probability or likelihood of occurrence of Vp illnesses during months when they are reasonably likely to occur on an annual basis

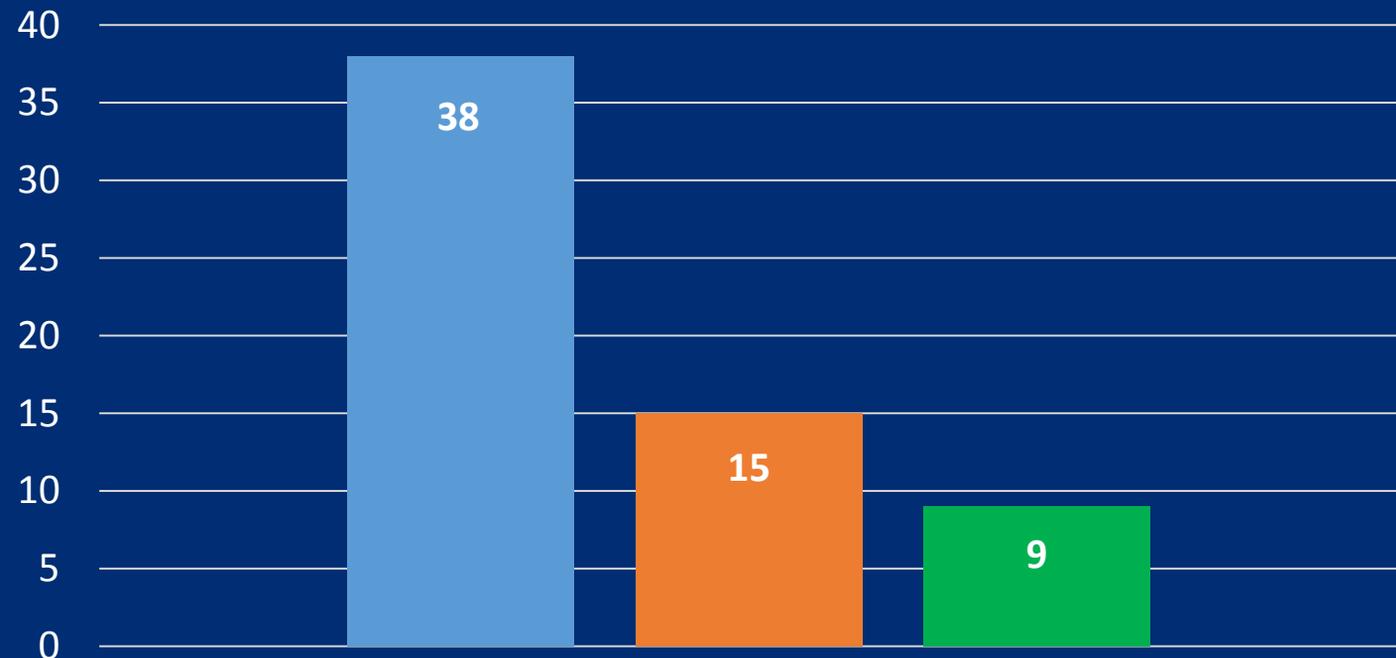
**Risk Evaluation:** Reduce Vp illnesses to < 1:100,000 servings of raw shellfish (oysters or hard clams)

**Vp Control Plan:** Include triggers and control measures (time to temperature) to reduce Vp illnesses in harvest areas



# 2014 Vp Illness Summary

## Confirmed Vp Cases

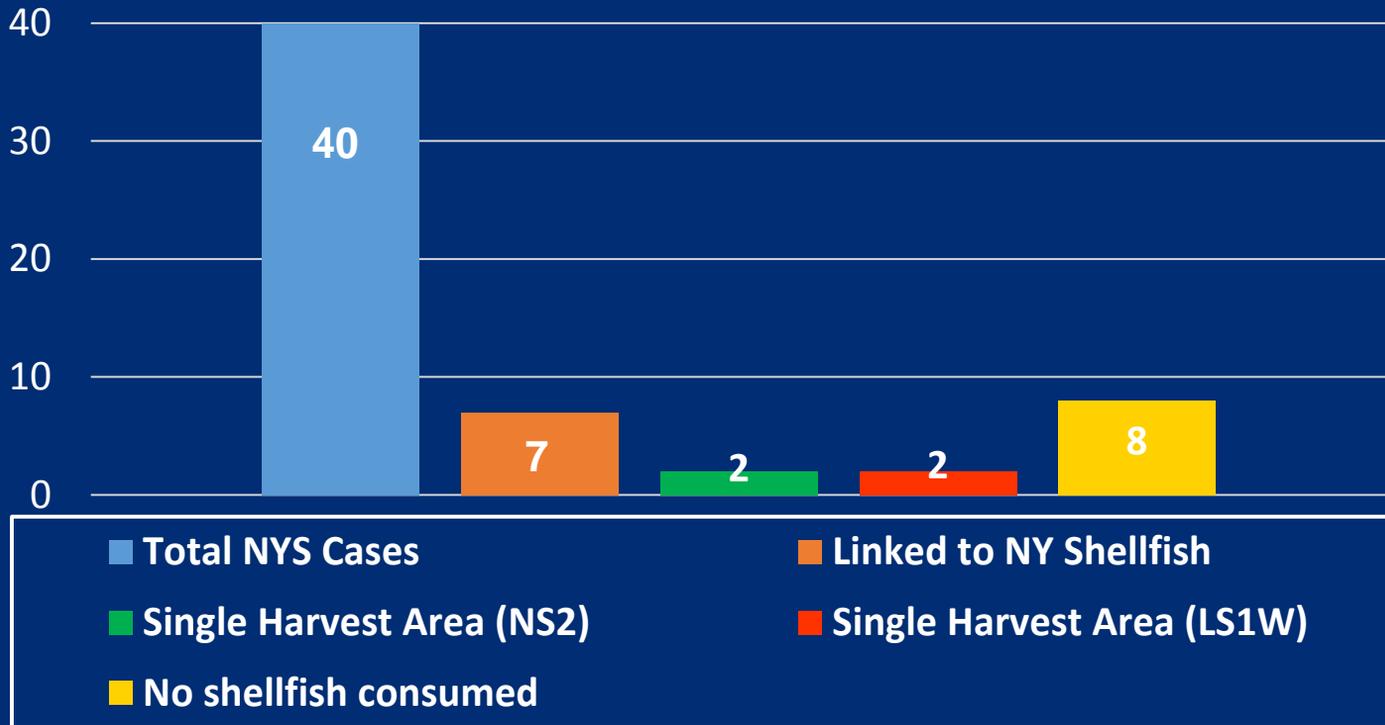


■ TOTAL Vp CASES IN NY OR REPORTED TO NY

■ LINKED TO NY HARVEST AREAS

■ LINKED TO SINGLE HARVEST AREA - HUNTINGTON/NORTHPORT BAYS - NS3

# 2015 Vp Illness Summary – Confirmed Cases

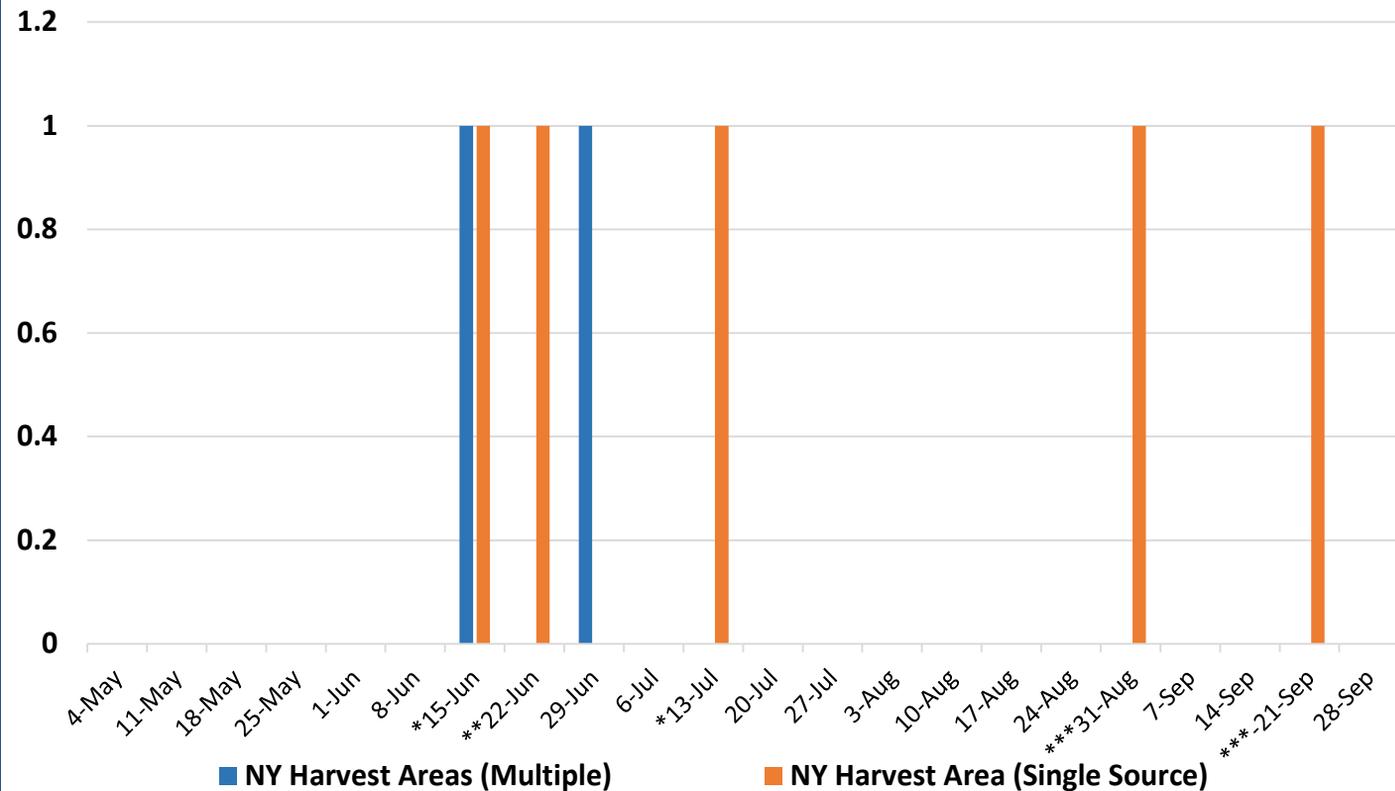


Sporadic illnesses 6/16 – 9/21; 3 Clams, 3 Oysters, 1 both;  
 NS2 (Oyster Bay) 2 clam illnesses; harvested 6/17 & 7/9  
 LS1W (Long Island Sound, West of Eatons Neck) 2 oyster illnesses; 8/25 & 9/21



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# 2015 Vp Illness Onset Weekly Summary New York Harvest Areas



■ NY Harvest Areas (Multiple)

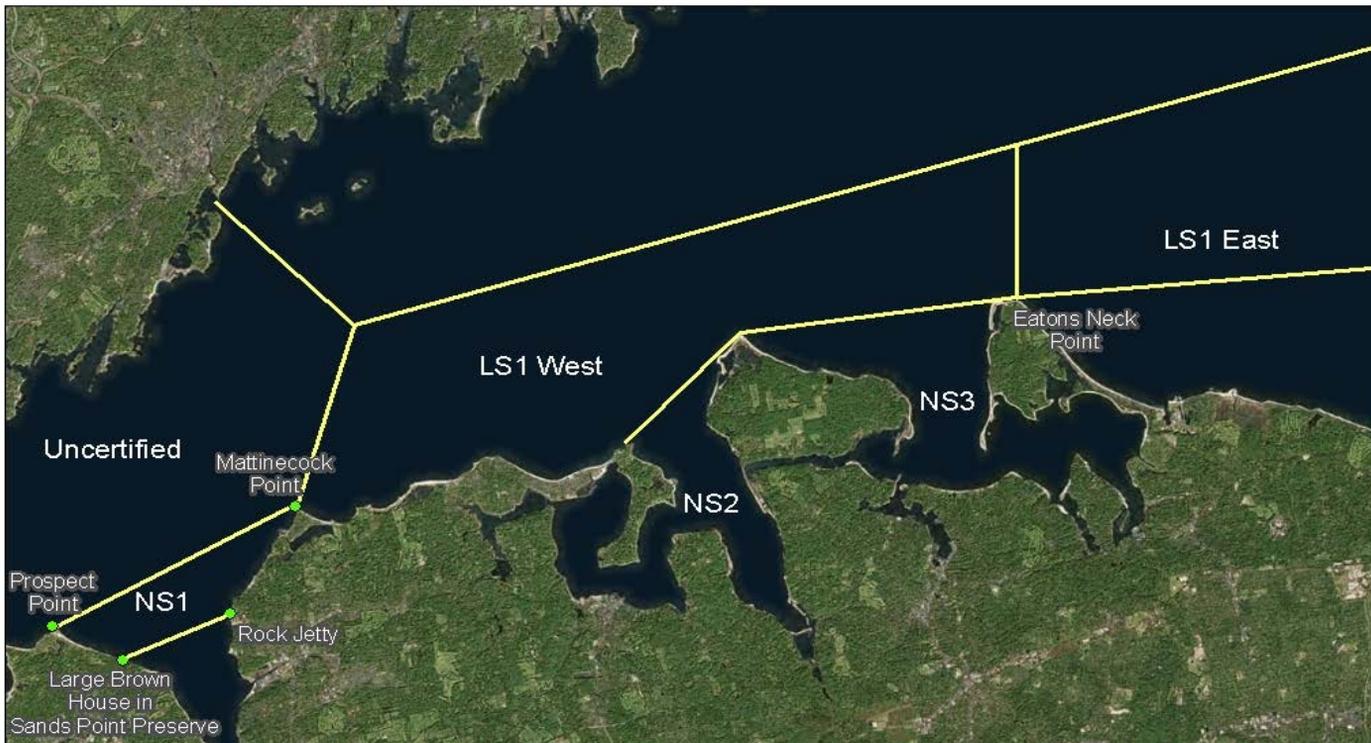
■ NY Harvest Area (Single Source)

\*Single Harvest Area – NS2 \*\*Single Harvest Area – Unapproved Source \*\*\*Single Harvest Area – LS1 West

## 2016 Vp Control Plan

- **Harvest Areas: NS1, NS2, NS3 and LS1 West of Eatons Neck Point (LS1 West)**
- **Applies to Hard Clams and Oysters**
- **Effective May 1 – September 30 for cooling of shellstock**





The map image is provided for informational purposes only. The requirements in Condition #7 (see page 1) apply to harvest areas NS1, NS2, NS3 and that portion of LS1 lying west of Eatons Neck Point (Town of Huntington) that are subject to a Vp Control Plan. The legal descriptions of all uncertified lands may be viewed at the following webpage: <http://www.dec.ny.gov/reg/4014.html> For Part 42, "Sanitary Control over Shellfish," see: <http://www.dec.ny.gov/reg/4013.html> This map should not be used for navigational purposes.

# Harvest of Hard Clams and Oysters in LS1 West or East of Eatons Neck Point

- **Tag LS1 West** for harvest west of Eatons Neck Point (Town of Huntington)
- **Tag LS1 East** for harvest east of Eatons Neck Point
- No commingling of oysters and hard clams from LS1 West and LS1 East
- Tagging designation intended to reduce geographic extent and size of closure if needed



# Vp Control Plan - Requirements for Diggers: Time – Temperature

## Hard clams and oysters:

immediately culled and cooled through icing, mechanical refrigeration or other method once time of harvest begins

Time of harvest must be written in indelible ink on harvester tags and affixed to each container prior to placement of any shellfish into the container



## Digger Requirements – Time to Temperature (Culling and Cooling)

- Once container is filled as intended, a new time of harvest begins when the next lot of shellfish is removed from the water
- Oysters and hard clams must be maintained under temperature control (cooling) throughout the harvest day
- All oysters and hard clams taken from Vibrio Control Plan areas must be cooled to an internal temperature of 60°F (15.6°C) or less prior to sale to original dealer



# Definitions: Time of Harvest and Internal Temperature

## Time of Harvest (Start of Harvest):

Time when first shellstock or each lot is taken from the water and prior to cooling (shellstock no longer submerged)

## Internal Temperature:

The external temperature of the shell of the animal, at the center of a packaged mass of shellstock (box, sack, bag, etc.)



## Cooling Methods: Icing, Mechanical Refrigeration, Evaporative Cooling or Slurry

- Ice must be of drinking water quality (potable water) or from an approved source
- **Mechanical Refrigeration:** maintained at 33°F (0.6°C) to 45°F (7.2°C)
- **Ice Slurry:** Use of certified water from harvest area
- Douse with water from Certified Area for evaporative cooling in addition to icing, refrigeration or slurry



# Acceptable Cooling Methods



## Vp Control Plan - Requirements for Diggers Shellfish Tags and Harvest Logs

- Must include **Time of Harvest** for hard clams and oysters; (\*year-round requirement applies to all shellstock in NYS)
- **Harvester Tags** must be completed prior to leaving harvest area
- **Log Books** must be completed prior to landing on a daily basis



# Harvester Log books

- Common name of shellfish
- Quantities (Net weights, numerical counts or standard measures) of shellfish harvested
- Harvest Date
- Areas from which shellfish were harvested
- Time of Harvest for each container
- Names and Permit numbers of all purchasers of shellfish (disposition of shellfish sold)



# Vp Control Plan - Requirements for Diggers

- Containers must be self-draining
- Shellfish cannot sit in standing water
- Exception for use of ice slurry for rapid cooling when water temperature of slurry is less than or equal to 45°F (7.2°C)



## Requirements for All Diggers

- May 1 – October 31: Must shade shellfish on harvest vessel and during transport to original dealer
- Year-round: Harvester tags must include time of harvest and tags affixed to containers prior to placement of any shellfish in the container
- Containers must be self-draining; no standing water
- Harvest logs must include time of harvest



# Onboard Shading of Shellfish May 1 – October 31



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## Oyster Harvest – Not in Vp Control Area

- Oysters harvested for food consumption: immediately culled and cooled once time of harvest begins; icing, refrigeration or approved method
- Time of harvest written on harvester tag and affixed to container prior to placement of any oysters into the container
- Once container filled as intended, a new time of harvest begins when the next lot of oysters is removed from the water
- Cooling Effective May 1 – September 30
- Time of Harvest must be identified on harvester tag and harvest log



# Vp Control Plan Requirements for Shippers

- Hard clams and Oysters: Received from harvesters from NS1, NS2, NS3 or LS1 (west of Eatons Neck Point) from May 1 – September 30 must be rejected if:
  - Shellstock temperature at receiving greater than 60°F
  - Shellfish harvester tag does not include time of harvest for each container of shellstock
- Must Record date, time received and internal temperature (center of lot/container of shellstock) at receipt



# Vp Control Requirements – Shippers

- Hard clams and Oysters from Vp Harvest Areas: Must be cooled to temperature of 50°F or less within 10 hrs of **time of harvest** and prior to being shipped
- Hard clams and Oysters from LS1 must be tagged as LS1 West or LS1 East; no commingling of product allowed
- No shrink wrap of shellstock prior to reaching temperature of 50°F or below



## Requirements for Shippers from Harvest Areas Not under a Vp Control Plan

- All shellstock received from harvesters: Must include time of harvest on harvester tags; kept in shellfish receiving records
- All oysters received from harvesters between May 1 – Sept 30 must include time of harvest on harvester tags; temperature must be recorded upon receipt and kept as receiving records
- No shrink wrapping of shellstock prior to reaching temperature of 50°F or below



# Requirements for All Shippers in NYS Shipping Document - SHIPPING

- All shellstock must be cooled to at least 50°F prior to distribution and must include a shipping document with the shipment indicating:
  - 1) Shipped adequately iced; or
  - 2) Shipped in conveyance pre-chilled & maintained at or below 45°F and
  - 3) time shipped and your initials



# Requirements for All Shippers in NYS Shipping Document - RECEIVING

- All shellfish dealers must Reject shellstock received without a properly filled out shipping document
- Upon receipt, receiving dealer must record the date/time and temperature of the shellstock
- All Shellstock shipped or received without a properly filled out shipping document is subject to embargo as appropriate



# Questions

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