Preparing for Potential Impacts on Maine Coastal Communities:
Identifying Possible Intersections Between the Ongoing Opioid Crisis and Looming Challenges to the Lobstering Industry

As peak lobster fishing season approaches, fishing communities are faced with extra challenges this year—the anticipated bait shortage and additional right whale rules, combined with the ongoing opioid crisis.

Community members have been anticipating whether, how, and when these issues might converge, who will be affected, what resources are available, and how might we connect people with these resources.

In this document, we seek to outline key information on the opioid crisis in Maine, along with updates on the looming bait shortage and right whale rules. We are sharing this information with you and other partners in hopes that you consider these issues in conjunction to help prepare your communities for potential impacts.

As community leaders, you already know many of the resources available to your neighbors, and you are often the first to respond to public concerns. The Island Institute sees our role as supportive and connective and if there is any way we can assist in connecting members of your community to the resources they might need, please reach out to us.

THE OPIOID ISSUE

The current opioid epidemic in the United States is a major public health challenge that directly impacts Maine’s island and coastal communities and disproportionately affects those in the fishing industry.

- **135** — Number of Americans who die from opioid overdose every day
- **2:1** — Minimum ratio by which OD deaths now exceed motor vehicle related deaths in the U.S.
- **6th** — Rank of Maine on the list of states with the highest rates of OD deaths in the U.S. in 2017
  - 2016 – 378 drug-induced deaths in Maine
  - 2017 – 418
  - 2018 – 354 ("Drug Overdose Deaths Declined in 2018 but Remain at Historic Levels")
  - 2019 – 14% decrease in the first quarter*
- A likely contributor to the high number of OD deaths is the increasing presence of fentanyl, implicated in over half of overdose fatalities, also, deaths associated with cocaine and methamphetamine, often in combination with opioids, are on the rise

* Decrease likely in part due to expanded access to naloxone (Narcan) (Gordon Smith, Director of Opioid Response)

What is Substance Use Disorder (SUD) and Addiction?

- “A chronic, relapsing brain disease characterized by compulsive drug seeking and use, despite harmful consequences—considered a brain disease because drugs change brain structure in ways that can be long lasting and lead to many harmful, self-destructive behaviors” (NIH National Institute of Drug Abuse)
Addiction as a Childhood Illness:
- The use of substances at an early age (<21yo) is associated with a significantly higher risk of developing SUD.
- There is a strong correlation between early childhood trauma (also known as Adverse Childhood Experiences or ACEs) and the subsequent development of SUD.

Challenges people with SUD face:
- Finding affordable, immediate and local high-quality treatment
- Lack of access to housing, transportation, employment—reducing hope and connectivity
- ACEs – Adverse Childhood Experiences – strong correlations between high ACEs and addiction
- Accidental death by overdose
- **Stigma**: Negative perceptions of people with SUD from society, friends, families, the healthcare system, and personal shame

Consider how substance use disorder is treated differently than other illnesses...

**Thought Experiment:**
What if We Treated Diabetes Like Addiction?

*Would We...*
- Imply that poor lifestyle choices have caused the disease?
- Say that elevated blood glucose makes blood dirty?
- Plan to treat with insulin for only two years, then insist on changing lifestyle enough to taper off?
- Decline to treat at all?
- Insist that patients must go to diabetes education classes to continue treating them?
- Discharge patients from treatment if they choose to eat poorly, don’t lose weight, and/or have a persistently high blood sugar?

Effective Treatment for Substance Use Disorder
- There is strong evidence for the effectiveness of medications for opioid use disorder (OUD) treatment, including methadone and buprenorphine (Suboxone, Subutex) and naltrexone (Revia, Vivitrol)
  - Note: “Narcan” or Naloxone revives those that are overdosing, but is not used for the treatment of OUD.
- Medication-assisted treatment (MAT) saves lives and decreases OD deaths, by reducing cravings, eliminating withdrawal symptoms, and helping individuals remain engaged in treatment.
- These treatments are still widely under-utilized in Maine and nationally, but this is changing, and now many emergency departments initiate buprenorphine and provide rapid access to follow-up.
- MAT combined with individual or group therapy, as well as involvement with mutual support groups such as AA/NA are recommended.
Opioids & Fishing Communities

- The opioid OD death rate is 5 times higher in individuals from fishing, farming, and forestry vs other occupations
- The opioid crisis is the newest version of long-standing SUD issues with alcohol

- Contributing factors:
  - Huge supply of prescription opioids, highly available
  - Fisherman targeted by dealers, cash readily available
  - Desire to avoid withdrawal symptoms caused by strong physical dependence on opioids
  - Barriers to treatment: lack of health insurance, difficulty getting to appointments while out fishing, etc.

What Can We Do?

- Use non-stigmatizing language (see above)
- Learn the signs/symptoms of overdose and how to administer naloxone/carry naloxone
- Know local treatment resources and how to access them

---

Much of the above content in this packet was taken from Dr. Lisa Letourneau’s Feb. 2019 presentation to the Island Institute board of directors titled Understanding the Opioid Epidemic: National, State and Local Perspective

THE BAIT ISSUE

Overview
Herring, the primary bait used by lobstermen, is going to be in short supply in 2019 and in the years to come. The decline of this bait source will most likely have a large impact on the lobster industry in Maine. Alternative bait options are being explored. Fortunately pogies have been abundant this year, but it may prove difficult to make up for the loss in volume of herring as the season progresses.

Numbers
Based on poor stock assessments of the Atlantic herring population, the National Marine Fisheries Service (NMFS) cut the herring fishery quotas drastically for 2018 and 2019, with additional cuts likely to come in 2020 and 2021.

- 2018 – Last August (in a dramatic peak season ruling) the NMFS cut the 2018 quota in half from 104,800 metric tons to 49,900t.
- 2019 – This year NMFS has reduced the quota by an additional 70%, to 15,065 metric tons.

Who will potentially be impacted most?
- Island and remote peninsular communities: Require longer and arduous distances to truck bait
- Individuals not associated with fishing co-ops and smaller buying operations: May not be well connected or have access to freezer space
- Penobscot Bay: In this region, fresh herring tends to be the bait of choice
- Younger fishermen: A downturn in bait availability could filter out the overleveraged fishermen
  - New fishermen tend to have higher debt-to-income ratio with large boat and truck payments.
  - Steady increases in price and availability of lobster since the 2012 season means many young fishermen have not been through a cyclical downturn like what we expect with the bait reduction.
Exploring Options
The hope is that a combination of alternative baits and expanded freezer space will be able to fill the gap.

- **Alternative Baits** – The Maine Department of Marine Resources (DMR) lists about 30 approved species but prohibits many others due to disease risk.
  - Pogies (also known as menhaden) – Recently robust, but has been a volatile fishery in the past.
  - Rockfish, redfish racks, and various forms of hard bait – Even those who don’t traditionally use herring are likely to find “hard bait” or other preferred baits to be more expensive and scarce.
  - Asian carp – Officials are investigating this invasive fish from the Midwest as a frozen bait option, pending negative test results for contagious diseases.

- **Frozen Bait** – Includes the aforementioned fish racks, among other bait options
  - Shipments come from the West Coast via train through Canada to Montreal, and then are trucked to Maine, arriving every 2-3 weeks. This is not a good option for daily supply unless stored.
  - Insufficient storage space: Efforts being made to build more bait storage still fall very short.

THE WHALE ISSUE

Overview
At its April meeting, the “Take Reduction Team,” an interdisciplinary group charged with meeting the terms of the Marine Mammal Protection Act and reducing mortality and serious injury, called for a 60 percent reduction of risk from the Maine lobster fishery in order to help the right whale recover. Given concerns about the lack of data connecting the Maine lobster fishery to recent right whale entanglements, Governor Mills directed the Maine Department of Marine Resources to develop a risk reduction plan commensurate with the risk posed by the Maine lobster fishery.

Numbers
The North Atlantic Right Whale is endangered and protected by the Marine Mammal Protection Act and the Endangered Species Act.

- **455** — The approximate number of remaining right whales according to the 2017 NOAA Stock Assessment, but the current total is likely closer to 400
  - **8** — The number of right whales killed so far this year (as of July 2019)
  - **<100** — The number of reproductive female right whales remaining

- **60%** — Risk reduction target, as determined by NOAA, which is needed to reduce serious injury and mortality below the Potential Biological Removal. To achieve this risk reduction, the Take Reduction Team proposed a **50%** reduction in vertical fishing lines (connecting traps on the seafloor to buoys on the surface), and the use of weak rope in federal waters. However, there are serious concerns about data used to arrive at the 60% risk reduction target, and how to equitably and safely achieve this reduction.

Possible Actions & Impacts
- Example scenarios that would meet the 50% vertical line reduction include:
  - Keeping the current limit of 800 traps, but requiring four-trap-trawls in state waters, twenty-trap-trawls from 3-12 miles offshore, and forty-trap-trawls outside of 12 miles
Reducing trap limits to 400 with two-trap-trawls in state waters, ten-trap-trawls in 3-12 miles and twenty-trap-trawls outside of 12 miles.

Many of the possible scenarios include 20-40 trap trawl requirements.

- Fishing these configurations requires a big boat with multiple crew.
- Forcing such long trawls could force an already over-capitalized fleet into even bigger boats or put fishermen’s safety at risk.

Maine DMR continues to evaluate the assumptions and data used by NOAA to develop a plan that more appropriately reflects the risk in Maine waters.

**Future Uncertainty**

The Maine Congressional delegation as well as Governor Mills both expressed their opposition to the risk reduction target in July. DMR will present a revised plan to industry in August and September for their input before presenting it to NMFS. It remains to be seen how the federal government will react to Maine’s new position.

**ADDITIONAL READING**

*BDN=Bangor Daily News  
**PPH=Portland Press Herald*

**Articles on the Opioid Crisis in Maine:**
- Maine had fewer overdose deaths in 2018 but opioid epidemic remains a ‘public health crisis’ – 02/2019 PPH**
- Janet Mills lays out new strategy to address Maine’s opioid crisis – 02/2019 BDN
- Focus on effective treatment is right course for Maine in opioid crisis – 02/2019 Editorial, PPH
- Maine is losing the war against opioids. Here are 10 steps to turn it around. – Janet Mills, BDN

**Information on the Bait Shortage in Maine:**
- How an invasive species or pig hide could solve Maine’s lobster bait crisis – May 23, 2019 BDN*
- Maine DMR Lobster and Crab Bait List – Last updated May 6, 2019
- Bait crisis could take the steam out of Maine’s lobster industry this summer – 03/2019 BDN
- Maine’s lobster industry braces for catastrophic cuts to bait fish catch – 02/2019 BDN
- Bait shortage could hit lobster fishery hard – 01/2019 Working Waterfront (Island Institute publication)

**Commentary on Opioids in Lobstering Communities:**
- Lost: Heroin’s Killer Grip on Maine’s People – PPH 2017, 10-part series on Maine’s heroin epidemic
  - Part 8 - Trapped By Heroin: Lobster Industry struggles with its deadly secret
- The Men Who Catch Your Lobsters are Self-Medicating with Heroin – Tonic Specials 06/2017
- Opioid Crisis takes toll on Maine Lobster Industry – CBS News, 08/2017
- Maine’s $1.6 billion lobster industry interrupted by opioid abuse - The New Food Economy, 08/2017

**Additional Reports and Testimony:**
- Task Force to Address the Opioid Crisis in Maine Final Report (state report) – 12/2017
Maine Opiate Collaborative Recommendations Progress Report – 12/2018
America’s Opioid Crisis: The Unseen Impact on Maine Children (printable factsheet) – AAP 2018
2018 MA Opioid Industry Occupation Report (Massachusetts Dept. of Health)
Sam Quinones’ Testimony - U.S. Senate Committee on Health, Education, Labor and Pensions 01/2019

News & Information on the Right Whale Regulations
Maine lobster industry fears whale protections will needlessly imperil workers’ livelihood – The Center Square 07/29/2019
6 recent deaths push rare whales closer to extinction – National Geographic 07/11/2019
New rules are meant to save whales; lobstermen wonder if they’ll survive – PPH 06/02/2019
Maine Lobster Industry’s Efforts to Protect Right Whales – Maine Lobstermen’s Association 2019
NOAA Lobster Industry’s Efforts to Protect Right Whales (webinar) – NOAA 2019

Other
Baby lobster numbers spell trouble for shellfish population in New England – PPH 06/30/2019

RESOURCES

Local Services Addressing Substance Use Disorder

211Maine: (Statewide) Free, confidential information and referral service that connects people of all ages across Maine to local services. 211Maine is available 24 hours a day, 7 days a week. You can reach 211Maine via phone, text, email, or by searching the online database. https://211maine.org/

Healthy Acadia: (Ellsworth) Dedicated to supporting people of all ages to live lives free of substance misuse and substance use disorder, and supporting individuals throughout their recovery journey. https://healthyacadia.org/initiatives/preventing_substance_misuse.html


Mid Coast Hospital Addiction Resource Center (Brunswick/Damariscotta): Comprehensive, group-based treatment of addiction and co-occurring mental health issues. Commitment to rapid access to treatment, never a wait list. (https://www.midcoasthealth.com/addiction/)

Mid-Coast Recovery Coalition: (Rockland) Supports recovery from addiction in Midcoast Maine. (https://midcoastrecovery.org/)

Narcotics Anonymous (NA): (Maine) 1-800-974-0062 Call the Narcotics Anonymous helpline and talk to a person in recovery from addiction. (www.namaine.org)

Opiate Free Island Partnership: (Deer Isle-Stonington) Identifies, promotes, and financially supports: opiate addiction treatment and recovery support programs for individuals/families in Deer Isle/Stonington and public awareness regarding substance misuse, prevention, and resiliency through
education in the schools and community. (https://www.deerisle.com/2018/opiate-free-island-partnership/8282/)

- **Our Island CARES**: (Vinalhaven) Mission - promotes health in our community through education and action to reduce and prevent substance abuse disorder (https://www.facebook.com/Our.Island.CARES/)

- **Groups Recover Together**: (Biddeford, Portland, Rockland, Ellsworth, Machias, and other Maine locations) For-profit treatment center with locations all around the state, particularly in the region you’re interested in (http://groupsrecovertogther.com)

- **Caring for ME/Quality Counts**: Webinars/modules related to the opioid issue (https://qclearninglab.org)

- **Portland Recovery Community Center** and **Bangor Area Recovery Network**: Peer-led recovery centers with lots of programming and resources (www.portlandrecovery.org & www.bangorrecovery.org)

### Social Services in Coastal Maine

- **CHIP—Community Housing Improvement Project**: (Lincoln County) Provides fuel assistance, home repairs, and furniture to the following towns in Lincoln County (http://www.chipinc.org/)
- **Maine TANF**: Temporary Assistance for Needy Families (https://www.benefits.gov/benefit/1664)
- **Maine Seacoast Mission**: Addressing healthcare, nutrition, and social needs of communities in Downeast Maine (https://www.seacoastmission.org/)

### Additional Online Resources:

- **Medically Assisted Treatment (MAT)** – Buprenorphine (suboxone) Treatment Practitioner Locator
- **Maine.gov Substance Abuse & Mental Health Services**: Crisis & Hotline Numbers
- **Adverse Childhood Experiences**: Acestoohigh.com
- **Addressing Stigma**: Words Matter: Improving the Substance Use Conversation

### Island Institute Blog Posts:

- State and Local Leaders Address the Opioid Crisis (http://www.islandinstitute.org/blog-post/state-and-local-leaders-address-opioid-crisis)