
**IDENTIFYING IMMIGRANT POPULATIONS AT RISK
FROM EATING CONTAMINATED SHELLFISH**

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Metropolitan Area Planning Council

and

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Executive Office of Environmental Affairs
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October, 1994

ACKNOWLEDGEMENTS

A number of organizations contributed information to the program. In particular, The Boston Foundation, The Institute for Asian American Studies, the Massachusetts Office for Refugees and Immigrants, and The Asian American Coalition were very helpful in providing data on the demographics of recent immigrants. The Massachusetts Division of Marine Fisheries provided us with their most recent data on the status of shellfish beds in towns and cities bordering Massachusetts Bay. The Massachusetts Environmental Police provided assistance by meeting with our staff and by helping us with site visits by making available officers and a boat; in particular we wish to thank Lieutenant Kathleen Dolan, Sergeant Robert Mercon, and Keith Robinson. We also thank Nancy Goodman of the Metropolitan Area Planning Council and Ruth Kuykendall of the Massachusetts Bays Program. Funding for the Project was provided by the Metropolitan Area Planning Council and the Massachusetts Bays Program. Supplemental funding was provided by Charles Consultants and Menzie-Cura & Associates Inc.

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1.0 INTRODUCTION

Potential health problems associated with eating contaminated shellfish are well recognized (citation). Concern for human exposure to pathogenic bacteria and viruses associated with sewage has led to the closure of many shellfish beds in coastal Massachusetts. These closures are enforced by local authorities as well as the Massachusetts Environmental Police. Despite these efforts, shellfishing occurs in a number of areas. Some of this activity is well organized and involves the harvesting and selling of contaminated shellfish to commercial establishments. These practices were highlighted several years ago in a series entitled *The Clam Scam* prepared by Sharon Wright of Channel 4 T.V. in Boston. The series focused on the illegal harvesting and commercial distribution of shellfish - a practice known as bootlegging - and the efforts of the Massachusetts Environmental Police to curtail these activities.

Less attention - at least in the media - has been given to shellfishing among populations who use shellfish for personal use or limited sale. In particular, recent immigrant populations, notably southeast Asians, have turned toward the sea as a source of food to supplement their diet. Many of these people have settled in the Boston metropolitan area where shellfish beds are within easy reach and also, unfortunately, contaminated.

As part of their cultural adaptation, Vietnamese and other southeast Asian groups, including Cambodians, frequently pursue familiar activities such as fishing and water activities for recreational and food-harvesting purposes. Throughout the Massachusetts coast areas and along river banks and waterways, entire families have been observed in the warmer months to spend afternoons and entire days shellfishing, fishing, wading and playing in local water areas even those which are off-limits with posted signs.

During 1993, we conducted a preliminary survey of such activities in the vicinity of Castle Island park on Boston Harbor in Dorchester. Park security personnel expressed exasperation over the difficulty of enforcing the flat closure for clamming and other shellfishing on the island as a result of illegal use by southeast Asian populations. We were told that the enforcement efforts by Park security personnel had produced frustrating results. As a consequence, Park security turned a 'blind eye' to the shellfish-diggers and the immigrant-residents played a 'cat & mouse' game with officials - both implicitly understanding that

the activities continued unregulated.

During our preliminary survey, we interviewed various people within the Dorchester Vietnamese community to learn more about their use of shellfish and methods of preparation. After sensing initial communication resistance, we found that the community's knowledge and identification of pollution risk were limited to observable characteristics such as smell and sight. This was based primarily on their association of contamination or pollution with decay, and waste disposal such as litter and rubbish. Microorganism contamination and chemical problems, not being readily discernible, was of little concern. Local methods of shellfish preparation included methods (of dubious effectiveness) to flush out impurities from the shellfish before consumption. One woman related to us how the placing of metal utensils and strong chilies in the pre-cooked shellfish water was a typical precautionary method.

These preliminary observations prompted us to investigate the extent to which immigrant populations are shellfishing in closed areas along Massachusetts Bay with emphasis on metropolitan Boston. This report identifies geographic locations and groups of people (principally southeast Asians) where there exists a potential for exposure to pathogens or toxic chemicals as a result of shellfishing. We also provide an initial ranking of areas where the potential for exposure exists.

2.0 METHODS

The approach involved the following steps:

- 1) identifying the locations of closed shellfish beds along Massachusetts Bays;
- 2) determining the extent to which closed shellfish beds are used by contacting local authorities;
- 3) making direct observations of some of the beds in the Boston metropolitan area to obtain first hand information concerning shellfishing activities;
- 4) developing demographic information on southeast Asians in the Boston metropolitan area and other locations in coastal Massachusetts;
- 5) ranking locations and/or southeast Asian communities with regard to potential for exposure to pathogens or toxic chemicals associated with eating contaminated shellfish.

2.1 Identifying the Locations of Closed Shellfish Beds and Areas of Deteriorated Water Quality Along Massachusetts Bay

Data were obtained from the Massachusetts Division of Marine Fisheries (DMF) on the closure status of shellfish beds in Massachusetts Bay. These were provided to us in tabular form. We also relied upon the summary of coastal water quality conditions presented in the 1991 Menzie-Cura report on loadings of contaminants to Massachusetts Bay.

2.2 Determining the Extent to Which Closed Shellfish Beds Are Used

Local authorities in each town and city with closed shellfish beds were contacted and asked to respond to a series of questions concerning the use of closure areas. These individuals included shellfish officers as well as other officials. A list of Massachusetts shellfish officers was provided by Alan Marcy of the Massachusetts Shellfish Officers Association. In addition, we

contacted representatives on the Metropolitan Area Planning Council and Jack Wiggins of the Urban Harbor Institute.

The Massachusetts Environmental Police were especially helpful in identifying the extent and nature of illegal shellfishing activities. Lieutenant Kathleen Dolan arranged for us to meet with individual officers as well as to make site visits. The Environmental Police provided us with copies of the maps they use to determine areas that are open, conditionally opened, or closed.

2.3 Making Direct Observations

Based on information gathered in the previous step, we made direct observations of some of the shellfish beds in the Boston metropolitan area. Two of these site visits were made by boat with the Environmental Police and two were made by car. Areas visited included Revere beach, Point-of-Pines, Wollaston Beach, Carson Beach, Constitution Beach, Short beach, Pines River, lower Neponset River, Dorchester Bay, and Riverhead Beach. During field trips carried out with the Environmental Police, we were provided with historical information concerning illegal shellfishing activities in each of the locations.

2.4 Developing Demographic Information on Southeast Asians

To obtain demographic information for southeast Asian communities in the metropolitan Boston areas, various government agencies, resettlement agencies, refugee offices and University Institutes which collect and reduce population statistics for ethnic and immigrant communities were contacted. Numerical values were obtained and bar graphs provided extrapolated data on the relative composition and density of the Asian communities.

The following agencies provided us with the information used in our analysis: The Boston Foundation; The Institute for Asian American Studies; Massachusetts Office for Refugees and Immigrants; and The Asian American Coalition.

Information on the demographics of southeast Asians in the greater Boston area were obtained from the Massachusetts Office for Refugees & Immigration, the Boston Foundation, and the Asian American resource Workshop. Data

provided included population statistics and maps.

2.5 Ranking Potential Exposure to Contaminated Shellfish

We compared the proximity of southeast Asian communities to contaminated shellfish beds where shellfishing was occurring to establish an initial qualitative ranking of potential exposures to human pathogens or toxic chemicals. The ranking considered two factors: population size of southeast Asian immigrants and proximity of community to coastal areas with closed shellfish beds where harvesting activities have been reported. Population size was categorized as high, moderate, low, or negligible for the various cities and towns for which we had data. Proximity to closed or restricted shellfish beds with activity were classified as High, Moderate, Low, and Very Low. To provide a rough ranking these categories were assigned values of 1 through 4. Population size was given a weighting factor of 1.5 to account for the importance of having a concentration of people in a particular area who might share information on where to gather shellfish or who might share the shellfish. The weighted population value and the proximity values were multiplied and the communities ranked by increasing numerical value.

3.0 USE OF CLOSED SHELLFISH BEDS

3.1 Status of Shellfish Beds in Massachusetts Bay

The status of shellfish beds in Massachusetts Bay is summarized in Appendix A. From this data base, we have compiled the statistics on closed and restricted beds and ranked these in terms of acreage (Table 1). Rankings by town are provided in Table 2. Some towns (e.g., Revere and Lynn) share shellfish beds and statistics are summed under only one of the towns.

Most of the communities are located on the North Shore and metropolitan Boston area with some including on the south shore. As can be seen from Table 2, there are closed or restricted shellfish beds adjacent to many Metropolitan Area Planning Council (MAPC) cities and towns.

3.2 Interviews with Local and State Authorities

A summary of interviews with local authorities and the Massachusetts Environmental Police is provided in Table 3. Based on these interviews, it appears that the use of closed or restricted shellfish beds by immigrant southeast Asian populations is concentrated in the metropolitan Boston area. The areas where activity appears to be greatest include: 1) Revere/Lynn/Winthrop, and 2) Quincy/Dorchester. Some activity occurs within Boston, in particular at Constitution Beach and Short Beach. The numbers of people involved in these more active areas are estimated to range from "dozens" to "hundreds" on a weekly basis. This general pattern has been reported by local authorities as well as the Environmental Police. One area that may experience increased use in the future is Nahant. Historically, this area has not been shellfished extensively by immigrant populations. But, the Environmental Police have reported increased activity and Nahant has extensive closed or restricted shellfish beds.

Outside of the metropolitan Boston area there are a few locations where shellfishing activity by immigrant populations has been reported. These include Gloucester and Marblehead.

Bootlegging operations still occur in some locations based on discussions with

the Environmental Police. Most notable locations include restricted or closed areas in and around Boston Harbor and the Pine and Saugus Rivers. The Environmental Police focus much of their investigative effort on these illegal commercial operations.

3.3 Site Visits

Site visits of closed or restricted shellfish beds in the Boston metropolitan area were made on August 14, August 23, August 27, and August 30 1994. Two site visits were conducted by car and two by boat. The boat was provided by the Massachusetts Environmental Police and two officers participated in each of those visits.

August 14, 1994

On this visit, observations were made of shellfishing activity on Revere Beach at low tide. People were shellfishing on the fringes of the beach outside of the normal bathing areas. The shellfish were being placed in white buckets. An older eastern European man was clamming but walked away as we approached. Two young men were digging worms for bait and commented on the illegal shellfishing that occurs on the beach. They noted that Cambodians from adjacent areas continued to clam even though they were periodically chased away. They remarked that some of these people had gotten sick according to the local Revere papers.

Two caucasian males in their 40s were observed digging quahogs. They indicated they came to the beach frequently to catch a few for their pasta. They were from East Boston.

A southeast Asian family was digging together, filling buckets with clams. Other southeast Asians were digging in the same area. On this day, approximately fifteen southeast Asians were observed digging clams. Overall, there were approximately two dozen people harvesting clams or periwinkles along the beach.

August 23, 1994

Site visits were made with Keith Robinson and Robert Mercon of the Environmental Police. Evidence of recent clamming was observed at Constitution Beach near Winthrop. The officers commented on the bootlegging activities that take place as well as on the "bucket clammers". They noted that southeast Asians clam the areas and that they probably know the activity is illegal. When approached the people either do not understand English or simply fail to communicate. The Environmental Police often just confiscate the clams and warn the people.

Sergeant Mercon noted that although they put out warning signs, these are ignored by the bootleggers and may not be understood by the Asians. Most of the signs are eventually vandalized. Based on his observations, multilingual signs should be in Chinese, Vietnamese, Cambodian, Spanish, and Portuguese.

August 27, 1994

A site visit was made to Wolloston beach in Quincy. No clamming activity was observed on the beach on this day. But, a number of people commented on the activity. The previous day a southeast Asian family had been escorted from the beach by the Environmental Police.

At the JFK library in Dorchester, we observed a southeast Asian family carrying a plastic bag of shellfish. They had apparently walked along the seawall from Columbia Point. A visit to Harbor Point, where there is a concentration of minorities, did not reveal any illegal shellfishing.

August 30, 1994

A site visit was made by boat with officers Lisa Greany and Keith Robinson of the Environmental Police during low tide. It was a neap tide and the intertidal areas were not extensively exposed. The visit included Dorchester Bay, the lower Neponset River, East Boston, Winthrop, Revere, Lynn, and the Pines River. We did not observe active shellfishing although we saw signs of shellfishing near Point of Pines. We did not get close to Revere beach where we had previously observed a number of southeast Asians shellfishing. The officers described the level of activity that occurs in the various areas. There

appear to be a few places where shellfishing is an ongoing problem and a number of other areas where it is sporadic. These data are summarized in Table 3.

4.0 LOCATIONS OF SOUTHEAST ASIAN POPULATIONS

4.1 Historical Overview of Indochinese Immigration

While the migration by Chinese and other Asians has a long history, the influx of Indochinese refugees in Massachusetts, like those in other parts of the United States is more recent--beginning in 1975. These immigrants which are mostly the Vietnamese, Cambodians, and Laotians come from lands intermittently torn apart by centuries of conflict, but the upheavals which characterized the Vietnam War caused waves of thousands to flee their homelands and to seek asylum in the West.

Starting in April 1975, the United States admitted more than 170,000 Indochinese refugees. The initial wave of immigrants were better educated more privileged coming as they did from the French-influenced and/or military classes. In subsequent waves, refugees in 1978 and 1979 consisted of "boat people" mostly from Laos and Cambodia, and in 1985 with the Family Reunification Act, brought less urbane farmers and fishing folk to American shores. Understandingly, in the Northeast, these immigrants tended to locate in coastal areas where they could practice their traditional subsistence lifestyles. In Massachusetts, small coastal towns as well as metropolitan Boston provide the anchoring communities for subsequent continuing arrivals.

4.2 The Massachusetts Settlement Communities

In spite of the intensive socio-cultural processing required under the 1975 Indochina Migration and Refugee Assistance Act, refugees resisted the pressure to abandon their traditional customs required to better assimilate into American society. While language and vocational skills led to satisfactory assimilation into the work force and into educational institutions, in specific ways, traditional lifestyle and familial constellation and relational patterns were the most resistant to Americanization. The traditional family consists of grandparents, parents, children, and other relatives. A single household may include up to 25 people or more. Resettlement agencies placed considerable pressure on family heads to split up their extended families into smaller units, with only partial success.

