

Hawaii Epi Bulletin

HAWAII STATE DEPARTMENT OF HEALTH
DISEASE OUTBREAK CONTROL DIVISION

NOVEMBER 2016

HDOH Conducts Community Assessment for Public Health Emergency Response (CASPER)



On September 24th, 2016, the Hawaii Department of Health (HDOH) conducted a Community Assessment for Public Health Emergency Response (CASPER) in the Honolulu neighborhoods of Makiki/Lower Punchbowl, Ala Moana/Kakaako, and McCully/Moiliili. The primary aim of the CASPER was to provide situational awareness to public health officials about health-related needs and

preparedness behaviors of the selected population in the event of a disaster. As CASPERs or similar community needs assessments have not been conducted in Hawaii before, this CASPER also acted as a pilot run, to establish a protocol and framework on which future CASPERs can be based and to resolve any logistical or locality-specific issues.

Participants included HDOH Public Health Emergency Preparedness Branch staff, HDOH volunteers, volunteers from the Department of Emergency Management (DEM) for Honolulu City and County, and Medical Reserve Corps (MRC) volunteers. Volunteers and staff were provided a 90-minute online training webinar two days before the CASPER, which included background, interview materials, interview technique, household selection technique, record keeping, and general logistics. On the day of the assessment the teams conducted in-person interviews of consenting participants living in selected household units, using a standardized questionnaire. The questionnaire included queries

on basic demographics, public health needs, emergency preparedness, and communication plans. In addition to interview data, field teams completed tracking logs regarding the household randomization process as well as interviews attempted/performed. Analysis of the collected data is ongoing.

The CASPER allowed HDOH to learn more about its resources and logistical organization in preparation for future CASPERs. Additionally, data collected from the CASPER will provide insight into the needs of a densely populated area in Honolulu County and can be used to allow HDOH to make better informed decisions with regard to public health responses.



CASPER Assessment Area (shaded) - Makiki/Lower Punchbowl, Ala Moana/Kakaako, and McCully/Moiliili

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Hepatitis A Outbreak Update

On August 15, 2016, the Hawaii Department of Health (HDOH) identified frozen bay scallops imported from the Philippines and served raw at Genki restaurant locations on Oahu and Kauai as the likely source of the Hepatitis A virus (HAV) outbreak. HDOH ordered the closure of Genki restaurants on both islands and the implicated scallops were embargoed to prevent any additional product from entering the market. Samples of the scallops collected from a distributor in Hawaii later tested positive for HAV at a Food and Drug Administration (FDA) laboratory; the HAV strain isolated from the scallops was sequenced and shown to be a genetic match to the outbreak strain from patient specimens.

The contaminated lot of scallops, produced by De Oro Resources Incorporated in the Philippines during November 2015, was only distributed to Genki restaurants on Oahu and Kauai. Sea Port Products Corporation—the supplier of the bay scallops to distributors in Hawaii and several mainland states—

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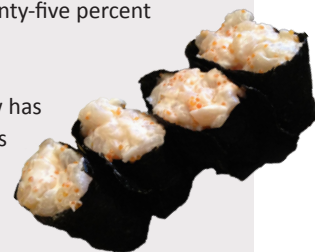
This timely report of surveillance and laboratory activities from the Disease Outbreak Control Division of the Hawaii State Department of Health contains information on investigations in progress and/or diagnoses that may not yet be confirmed. The **Hawaii Epi Bulletin** is intended primarily for the use of the public health professionals, should be considered privileged, and should **NOT be distributed** further.

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initiated a voluntary recall of 800 cases of raw bay scallops produced by De Oro. After assuring that all implicated scallops had been removed from local restaurants, completing a rigorous cleaning process overseen by the Sanitation branch, and screening all employees for HAV infection, Genki restaurants were approved for re-opening on September 9, 2016.

As of November 7, 2016, 292 confirmed cases of Hepatitis A virus (HAV) infections have been reported, with onset dates ranging from June 12 to October 9, 2016. Eleven cases are residents of the islands of Hawaii, Kauai, or Maui, and 7 cases were visitors. Twenty-five percent of cases have been hospitalized.

The incubation period for HAV infection ranges from 15 to 50 days after exposure. Though the 50 day incubation window has now passed since the contaminated product was removed from the market, DOH continues to investigate all HAV cases to prevent transmission and detect any potential other sources of infection. Vaccination continues to provide the best protection from hepatitis A infection; individuals who wish to receive the vaccine should speak to their healthcare provider.



An update on Carbapenem-resistant Enterobacteriaceae in Hawaii



Carbapenem-resistant Enterobacteriaceae (CRE) are bacteria resistant to most, and in some cases all, available antibiotics. Carbapenem resistance can occur via several mechanisms; the mechanism of greatest concern can be transmitted from one bacterium to another and involves the production of a carbapenemase that renders the entire carbapenem antibiotic class ineffective. The two most common carbapenemases in the United States are *Klebsiella pneumoniae* carbapenemase (KPC) and New Delhi metallo-beta-lactamase (NDM). Carbapenemase-producing CRE (CP-CRE) infections are difficult to treat and can have high mortality rates—infections with these bacteria can have mortality rates as high as 40% to 50%, earning it the moniker of “nightmare bacteria”.

Carbapenemases were first seen in the US in one state at a single medical facility in 2001, but by 2016 it had been found in [medical facilities in 48 states](#), including Hawaii. In Hawaii, we documented our first CP-CRE isolate in 2013, with more identified since then for a total of 7 as of November 2016. Most cases had complex medical histories with prolonged healthcare exposures, including care on the mainland or outside of the United States.

Healthcare providers must remain vigilant to prevent further spread of CRE in Hawaii. Patients at risk for CRE include those who have required complex medical care in the hospital, have had long stays in a healthcare setting, have had temporary medical devices inside them (e.g. catheters) for a prolonged period, and/or have had multiple courses of antibiotics.

The non-KPC carbapenemases seen in Hawaii have predominantly been isolated from patients who have received recent healthcare outside of the United States.

The mainstays of prevention of CRE transmission in healthcare include early recognition of CRE cases, strict adherence to infection control measures (including hand hygiene and contact precautions), minimizing use of invasive devices, and antibiotic stewardship. The Centers for Disease Control and Prevention (CDC) has put together an updated [toolkit to prevent CRE](#), which includes Clinical and Laboratory Standards Institute (CLSI) guidelines for carbapenem susceptibility testing (Table 1).

| | Susceptible (S) | Intermediate (I) | Resistant (R) |
|-----------|-----------------|------------------|---------------|
| Doripenem | ≤ 1 | 2 | ≥ 4 |
| Ertapenem | ≤ 0.5 | 1 | ≥ 2 |
| Imipenem | ≤ 1 | 2 | ≥ 4 |
| Meropenem | ≤ 1 | 2 | ≥ 4 |

Values are minimal inhibitory concentrations (MICs)

Table 1: CLSI guidelines for carbapenem susceptibility testing (2010)

Klebsiella species and *Escherichia coli* that meet the updated CRE definition are a priority for detection. If you have an isolate that meets the definition please contact the Disease Investigation Branch (808-586-4586) to facilitate transportation of the isolate to CDC for confirmation.

For more information on CRE, please visit:

<http://www.cdc.gov/HAI/organisms/cre/index.html>

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Hawaii's 2015 Statewide Antibigram Released

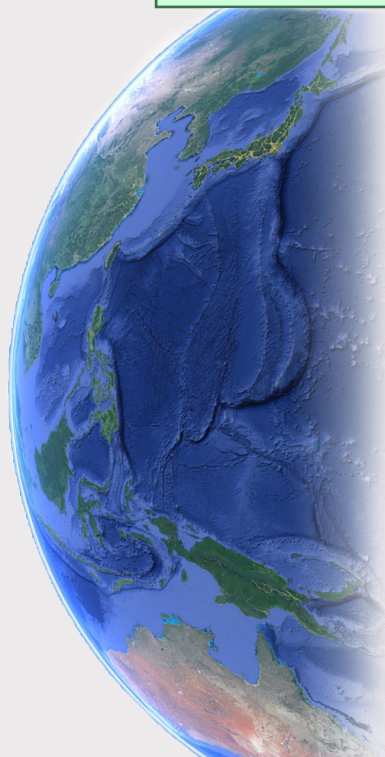
Antimicrobial agents have been used over the past 70 years to treat patients who have infectious diseases. Although these drugs have significantly reduced illness and death during this time period, overuse and misuse of antibiotics throughout the world has led to increasing prevalence of multi-drug resistant organisms. According to a [2013 report](#) by CDC, at least two million people become infected with antibiotic resistant bacteria each year in the United States and at least 23,000 people die as a direct result of these infections. To combat this growing threat, a national response across the continuum of care has been initiated. Most recently, this included a [Joint Commission medication management standard](#) and a new [CMS proposed rule](#), both focused on promoting antibiotic stewardship in the hospital setting. As more than 60% of U.S. antibiotic expenditures for humans occur in the outpatient setting and at least 30% of these prescriptions are unnecessary, it is vital that these areas are also targeted for antibiotic stewardship efforts. In order to address this issue, the CDC will soon release the *Core Elements of Outpatient Antibiotic Stewardship* which will provide guidance for antibiotic stewardship implementations for clinicians and facilities which provide antibiotic treatment in the outpatient setting.

One stewardship tool already in use by several local healthcare facilities and laboratories is the antibiogram. Antibiograms are a summary of all

antibiotic susceptibility testing performed for that facility, and provide a representation of a facility's local antibiotic susceptibility rates. A facility's antibiogram can be utilized by healthcare providers as an aid in selecting empiric antibiotic therapy, as well as to monitor trends over time within an institution. In Hawaii, data from individual facilities are submitted to HDOH and aggregated to generate a statewide antibiogram. This tool can be utilized by public health professionals in tracking statewide resistance patterns, detecting trends toward resistance, and promoting the judicious use of antibiotics. HDOH has been generating an annual statewide antibiogram since 2012.

The 2015 statewide antibiogram, recently released by the HDOH, represents data submitted by four clinical laboratories and two independent hospitals across Hawaii. The report, which can be found [here](#), includes data from acute care facilities, critical access hospitals, long-term care, and outpatient facilities. Additionally, statistically significant changes in susceptibility from the 2014 report are included to provide information on short term trends. **It is important to note that the data in the 2015 Hawaii State Antibigram are presented for surveillance purposes only and are not intended for use in clinical decision making. The antibiogram should not take the place of individual clinical assessment and isolate susceptibility testing.**

Updates from the Pacific



Dengue

- [Solomon Islands](#) –An outbreak of dengue was declared for Honiara and Guadalcanal on October 8, 2016 following an unusual increase in dengue-like illness, including the number of positive cases. Dengue virus serotype 1 (DENV-1), serotype 2 (DENV-2), and serotype 3 (DENV-3) have been confirmed in the current dengue outbreak.
- [Kosrae](#) – On November 1, 2016, the governor of Kosrae made an emergency declaration against mosquito-borne diseases. As of November 2, 2016 an outbreak of dengue (DENV-4) has been identified including 6 laboratory confirmed cases and 58 suspect cases.
- [French Polynesia](#) – Cases reported are decreasing or circulation is ongoing.

Zika

- [Kosrae](#) – As of November 2, 2016, there have been 23 confirmed cases, 21 probable cases, and 113 suspect cases of Zika identified in Kosrae since February 2016. Twenty of the cases have been pregnant females (8 have been laboratory confirmed, 7 are probable cases, and 5 are suspect cases pending testing).
- [Palau](#) – Has reported one case of laboratory confirmed Zika virus infection on November 7, 2016. The case has no recent travel history and the infection was likely locally-acquired.
- [American Samoa](#) – Cases reported are decreasing or circulation is ongoing.

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HDOH Hawaii Health Care Provider Disease Reporting Categories

Confidential

Infections/diseases which may carry a social stigma are to be reported with extra precautions to assure patient confidentiality. Reports are to be submitted within three working days of diagnosis.

Urgent

Diseases or conditions that are suspicious or presenting with novel symptoms that may or may not be part of a known disease or disease complex, labeled “urgent” shall be **reported by telephone as soon as a provisional diagnosis is established.**

The telephone report shall be followed by a written report submitted by mail or fax within three days to the Disease Outbreak Control Division, Disease Investigation Branch on Oahu or to the District Health Office on the neighbor islands.

Routine

Diseases labeled “routine” shall be reported by mail, by telephone, or fax to the Disease Outbreak Control division, Disease Investigation Branch on Oahu or to the District Health Office on the neighbor islands.

Routine/Enteric (enteric prevention priority)

Diseases labeled “routine—enteric prevention priority” shall be reported by telephone as soon as a working diagnosis is established if the individual case is a food handler, direct care provider, or pre-school-aged child. Otherwise, routine reports may be submitted.

Outbreak Reports

Any disease shall be reported by telephone when observed to occur clearly in excess of normal expectancy as determined by the healthcare provider or the Director of Health. The telephone report shall be followed by a written report submitted by mail or fax within three days to the Disease Outbreak Control Division, on Oahu or to the District Health Office on the neighbor islands.

HDOH Telephone Numbers

Oahu (Disease Investigation Branch)
(808) 586-4586

Maui District Health Office
(808) 984-8213

Kauai District Health Office
(808) 241-3563

Big Island DHO (Hilo)
(808) 933-0912

Big Island DHO (Kona)
(808) 322-4877

After hours (Oahu)
(808) 566-5049

After hours (Neighbor islands)
(808) 360-2575