

Clay County Public Health Center

2019 Annual Report

Environmental Health Section

Prepared by Robert Gilliland, Section Chief
4/16/2021



CLAY COUNTY

PUBLIC HEALTH CENTER



800 Haines Drive
Liberty, MO 64068
p. 816-595-4350
f. 816-595-4394
clayhealth.com

FOOD PROTECTION

The mission of the food protection program is to ensure a safe and wholesome food supply to prevent and minimize food borne-related illnesses. CCPHC accomplishes this by enforcing regulations, conducting plan reviews, developing, and integrating policies and interpretations; conducting routine inspections; conducting food borne illness complaint investigations and responding to other food emergency incidents. Safe food is assured through cooperating with state, federal and local food safety agencies; offering educational programs; and undertaking regulatory enforcement actions such as embargoing foods, conducting administrative hearings, and taking other legal actions when warranted.

The food protection program provides routine facility inspections, design and construction plan reviews, complaint investigations and food employee training to assure compliance with the Clay County Missouri Food Code. In addition to investigating food service-related complaints, the food protection program works with epidemiology staff to investigate reports of food borne illness.

CCPHC’s Environmental Health Section provides food handler trainings in English, Spanish, Mandarin Chinese, Korean, Vietnamese and ASL v.4.3, as well as Certified Food Safety manager training (through ServSafe). Food handler training for all employees that handle food and the presence of a certified food manager in a food establishment is required by the Clay County Food Code. We also provide information via social media, our website, e-mails, and mailings to help educate and inform industry and the public of food safety issues, food recalls, and food emergency response. Additionally, we aim to engage stakeholders in the discussion and adoption of updated rules and regulation related to food safety and for any fee adjustments that may be needed.

WHY: Foodborne illness affects many people every year. The Centers for Disease Control and Prevention estimate that approximately 48 million (or 1 in 6) people in the United States get sick from foodborne illness each year. In some cases, foodborne illness causes hospitalization and/or death. The CDC estimates foodborne diseases cause 128,000 hospitalizations and 3,000 deaths each year. *Source:* <http://www.cdc.gov/foodborneburden/>

Food Program Activities	2020	2019	2018	2017	2016
Food Handlers trained (class)	61	181	285	355	614
Food Handlers trained (online)	2898	3125	3143	2498	1447
Food Managers trained (ServSafe class)	267	331	366	404	278
Inspections (routine, follow-up, complaint & temp)	1463	2162	2266	2059	1851
Priority violations cited	1219	1519	1522	1591	1082
Priority foundation violations cited	1362	1232	1356	1277	888

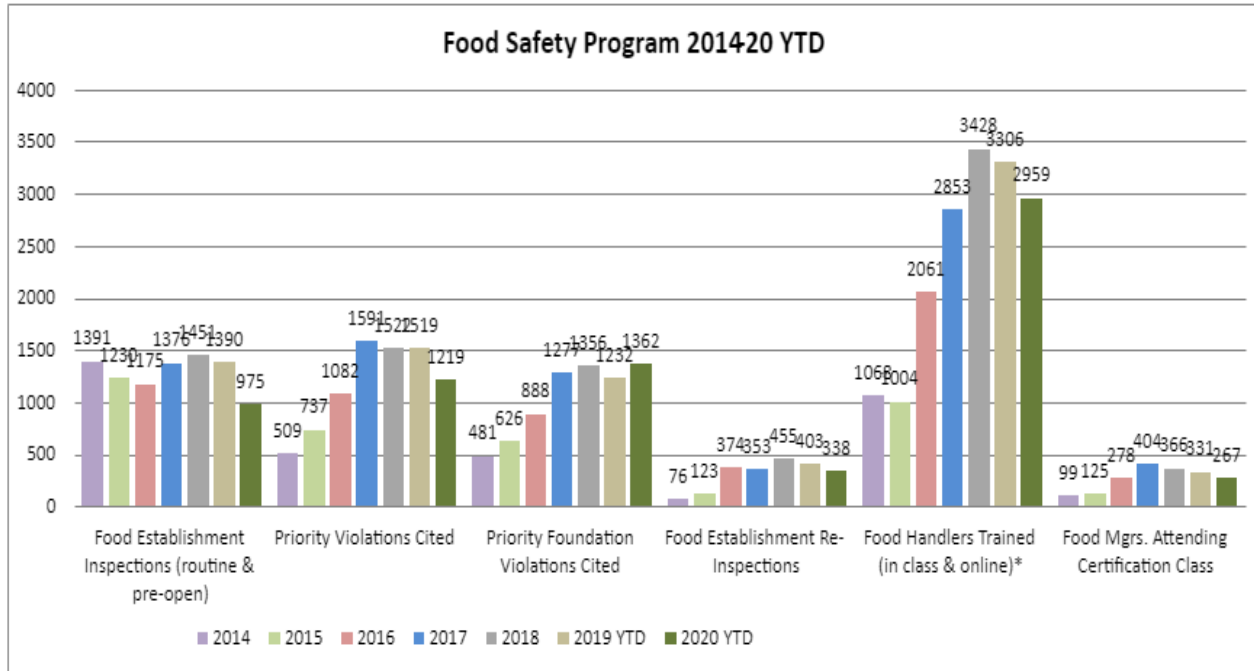


CLAY COUNTY

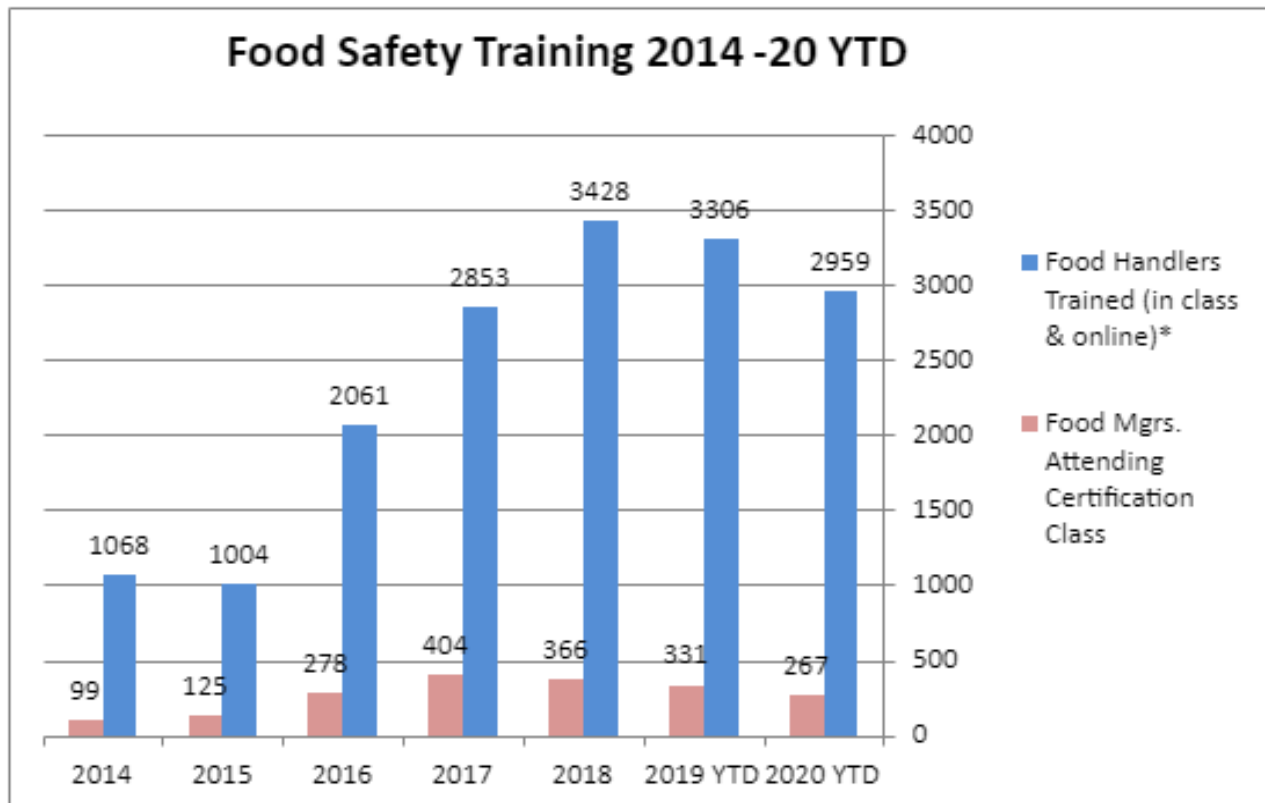
PUBLIC HEALTH CENTER



800 Haines Drive
 Liberty, MO 64068
 p. 816-595-4350
 f. 816-595-4394
clayhealth.com



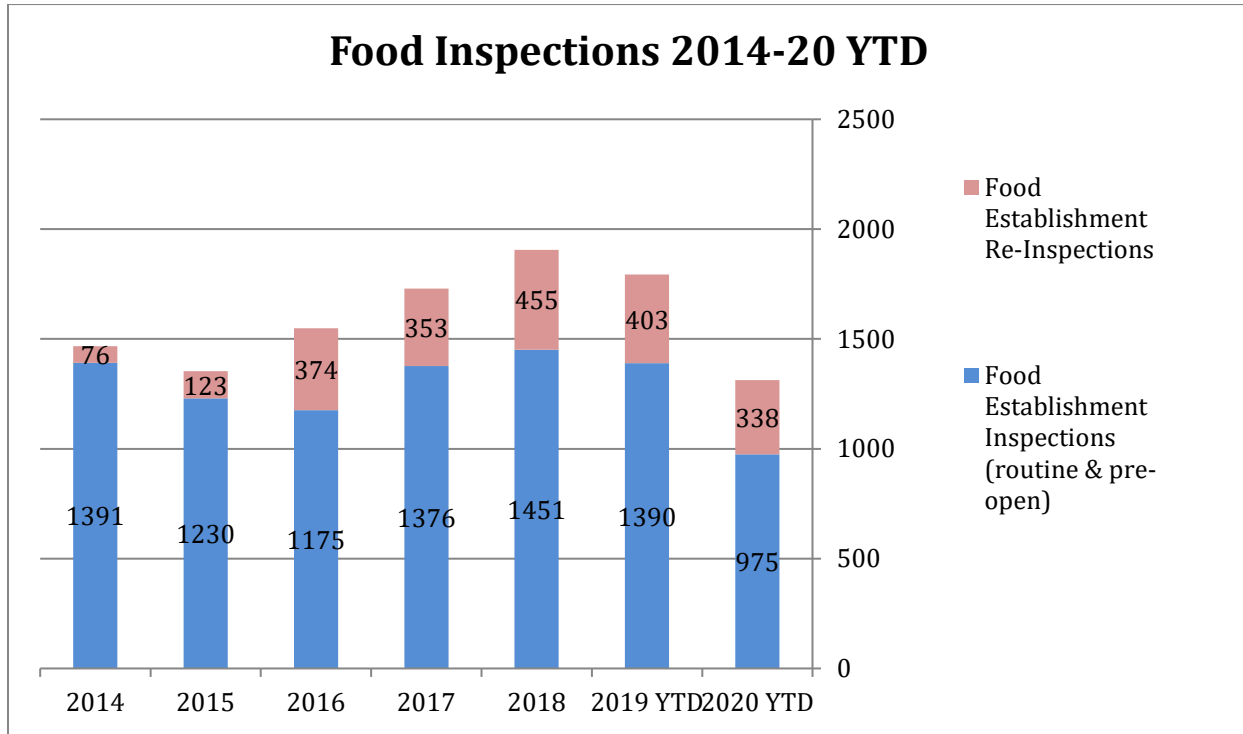
*Implementation of an online food handler training through StateFoodSafety.com occurred in November 2015.



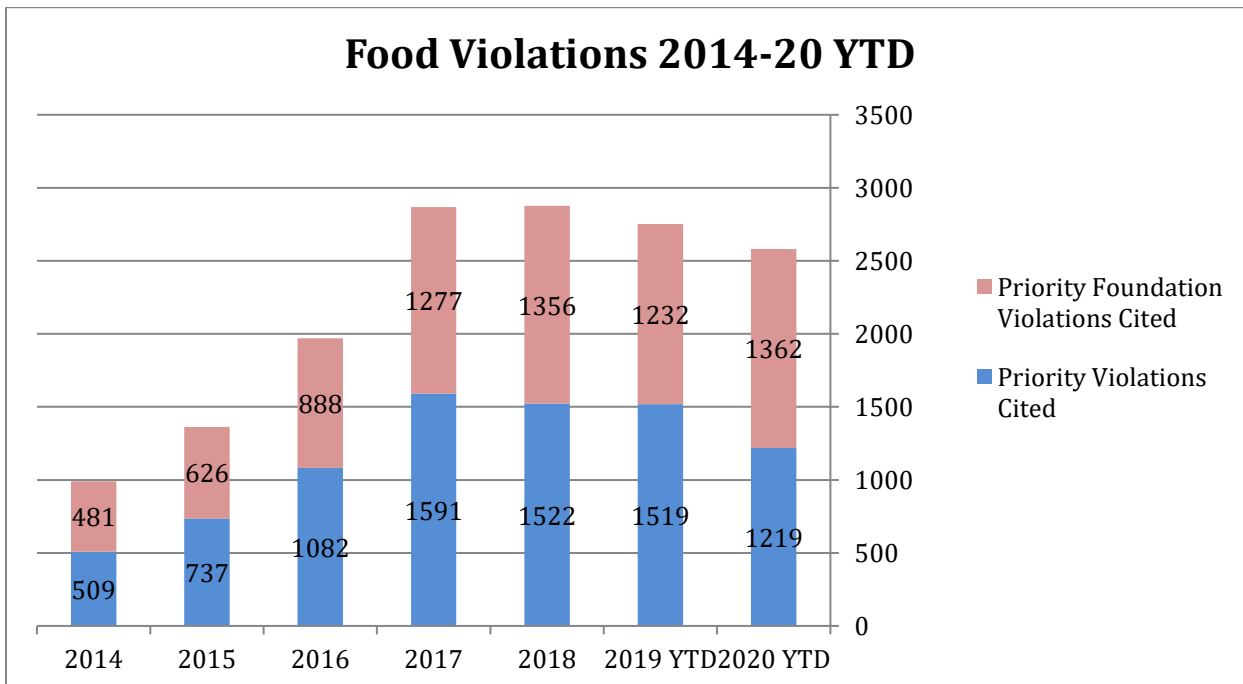
*online FH training tracking began Jan 2016



Food Inspections 2014-20 YTD



Food Violations 2014-20 YTD



Priority- contributes directly to the elimination, prevention or reduction to an acceptable level, hazards associated with foodborne illness or injury and there is no other provision that more directly controls the hazard.

Priority Foundation- means a provision in the Code whose application supports, facilitates, or enables one or more priority items.



CLAY COUNTY

PUBLIC HEALTH CENTER



800 Haines Drive
Liberty, MO 64068
p. 816-595-4350
f. 816-595-4394
clayhealth.com

ACHIEVEMENTS:

- Completed three FDA/AFDO Grants for food safety trainings, conducting a second self-assessment on the nine FDA Retail Food Program Standards, and for attending the Missouri Food Advisory meetings.
- Awarded three FDA/AFDO Grants totaling 15,471.95 for conducting verification audits on the FDA Retail Food Program Standards, food safety trainings, and conducting a risk factor study.
- There has been a 6.7% reduction of food safety risk factor violations cited on food inspections between 2019 and 2020. This could be attributed to the increased number of food handler and food manager training, as well as a continued focus on risk-based inspections and active managerial control of out of compliance risk factor violations.

STRENGTHS:

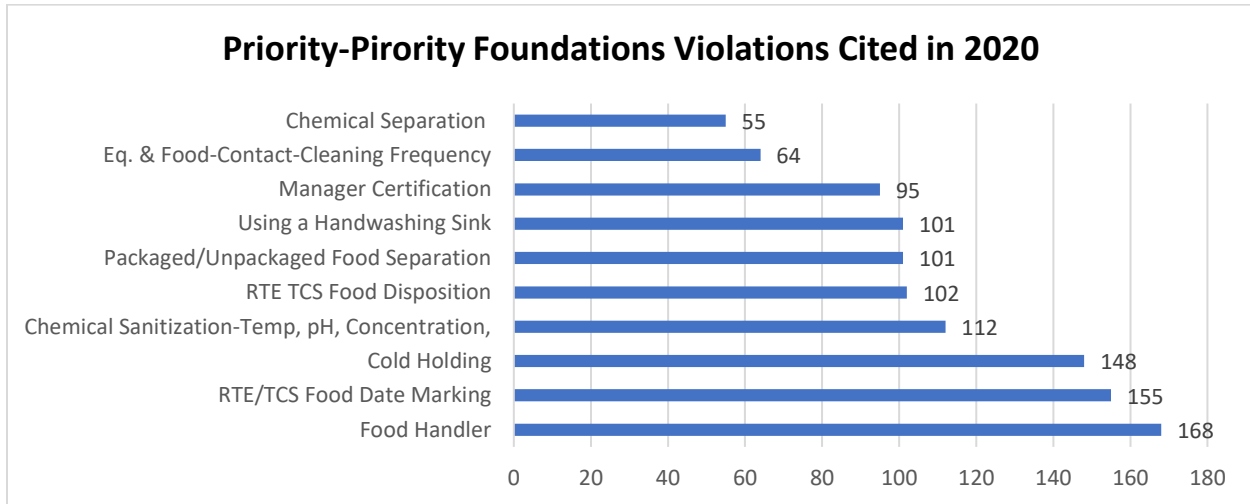
- Clay County's Food Code aligns nearly identically with the model FDA Food Code, with the adoption of the 2017 model FDA Food Code in late 2019. This has afforded EH the ability to have enhanced compliance and enforcement capacity.
- CCPHC's food inspection program has strong standard operating procedures that have helped bring consistency to the application, permitting, and inspection process. CCPHC also has an inspection software program that functionally meets internal and client needs.
- CCPHC has a very structured training process in place to achieve the required level of competency to effectively train new field staff to conduct regulatory inspections.
- CCPHC collaborates with other Kansas City metro LPHA environmental health programs to ensure consistency and communication across the region for improved outbreak investigation, emergency response activities, and harmonization in applying Food Code requirements.

CHALLENGES/BARRIERS:

- In 2020, due to the COVID-19 Pandemic, we were unable to start on the remaining program standard elements (i.e. quality assurance, risk factory study, resources, and staffing).
- Also, with the COVID-19 pandemic had fewer routine inspections conducted.
- Sufficiently active stakeholder engagement for the food inspection program continues to be a challenge. The program is exploring ways to recruit stakeholders so we can have meaningful feedback on Food Code changes, program permitting, inspection processes and fee adjustments.
- Permit renewal season is a very time intensive process with no option for customers to pay invoices online, resulting in a backlog of invoices each November-January, which also impacts the budget process.



PROGRAM IN ACTION:



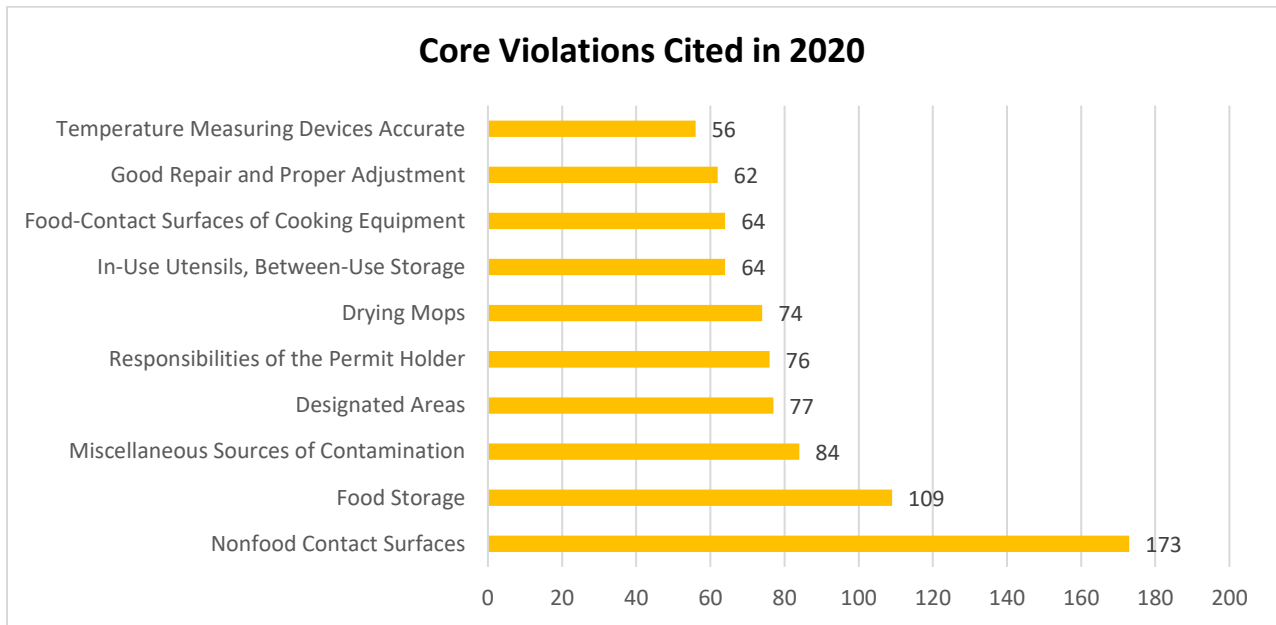
Reference	Priority/Priority Foundation Violations	# times cited		% out	
		2020	2019	2020	2019
2-103.12	Food Employee Certificates *2019 Combined w Manager's	168	508	17.23	26
3-501.17	RTE/TCS Food Date Marking	155	194	15.89	10
3-501.16	Cold Holding	148	298	15.17	15.5
4-501.114	Chemical Sanitization-Temp, pH, Concentration	112	104	11.48	5.3
3-501.18	RTE TCS Food Disposition	102	176	10.46	9.1
5-205.11	Using a Handwashing Sink	101	216	10.35	11.2
3-302.11	Packaged/Unpackaged Food Separation	101	183	10.35	9.3
2-102.12	Certified Food Protection Manager *2019 Combined w Manager's	95	508	9.74	26
4-602.11	Eq. & Food-Contact-Cleaning Frequency	76	N/A	7.79	N/A
4-601.11	Food Contact Clean to Sight and Touch	64	280	6.56	14.5

- The most cited violation for 2020 food inspections was the Food Employee Certificates (Food Handler) violation. A combination of the intervention strategy of making food handler and food manager a priority foundation violation and the COVID-19 Pandemic may have accounted for the almost 50% drop in violations from the last couple of years.
- Chemical Sanitization-Temp, pH, Concentration did see a slight increase from 2019. Increase may account for training and an understanding of the violation's interpretation.
- The following violations did see significant decreases for 2020 inspections from 2019 inspections: Food Contact Cleaned to Sight Touch, RTE/TCS Food Date Marking, RTE TCS Food Disposition, Chemical Separation
- However new risk factor violations, Eq. & Food-Contact-Cleaning Frequency did enter the top ten Priority/Priority Foundation Violations. These risk factor trends will be an area of



concentration in 2021 food inspections. These violations entering the top ten may account for training and an understanding of the violation’s interpretation.

- N/A indicates violations that were not in the top ten Priority/Priority Foundation violations from 2019.

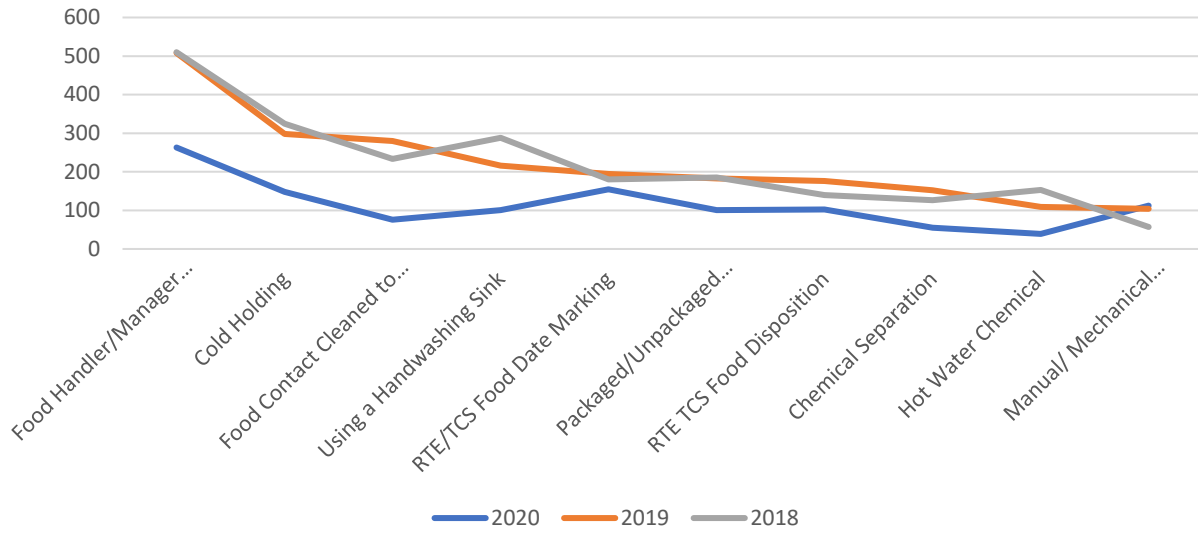


Reference	Core Violations	# times cited		% out	
		2020	2019	2020	2019
4-602.13	Nonfood Contact Surfaces	173	295	17.74	15.3
3-305.11	Food Storage	109	144	11.17	7.4
3-307.11	Miscellaneous Sources of Contamination	84	N/A	8.61	N/A
6-403.11	Designated Areas	77	172	7.89	8.9
8-304.11	Responsibilities of the Permit Holder	76	N/A	7.79	N/A
6-501.16	Drying Mops	74	N/A	7.58	N/A
3-304.12	In-Use Utensils, Between-Use Storage	64	154	6.56	7.9
4-601.11	Eq, F-C Surfaces, N/F- C Surfaces, and Utensils	64	112	6.56	5.8
4-501.11	Good Repair and Proper Adjustment	62	97	6.35	5.0
4-203.12	Temperature Measuring Devices, Ambient Accuracy	56	N/A	5.74	N/A

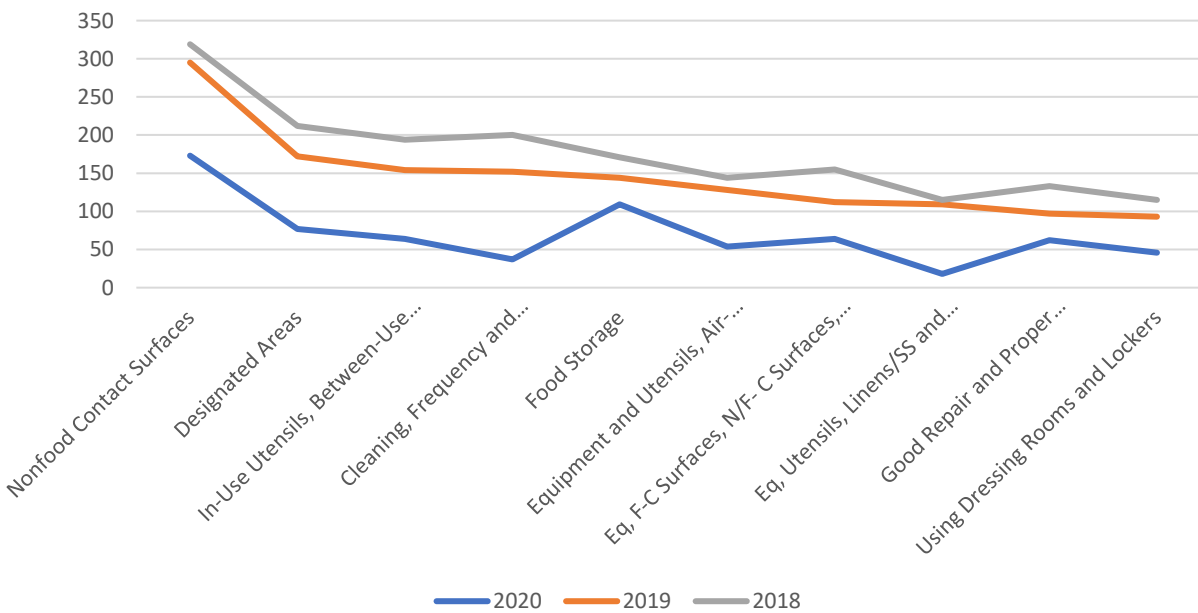
- All top Core violations for 2020 did have a decrease in the number of violations that were cited from 2019.
- N/A indicates violations that were not in the top ten core violations from 2019.



2018-2020 Top Priority-Priority Foundation Violation Trends



2018-2020 Top Core Violation Trends





CLAY COUNTY

PUBLIC HEALTH CENTER



800 Haines Drive
Liberty, MO 64068
p. 816-595-4350
f. 816-595-4394
clayhealth.com

RECREATIONAL WATERS

The mission of the recreational waters program is to administer and enforce minimum standards and criteria for the design, construction, operation and maintenance of swimming pools, spas, and similar recreational water facilities to minimize hazards to health and safety.

The pool inspection program provides routine facility inspections, design and construction plan reviews, complaint investigations and Aquatic Venue Operator training to assure compliance with the Clay County Missouri Swimming Pool, Spa, and Sprayground Ordinance.

CCPHC’s Environmental Health Section provides Aquatic Venue Operator trainings to meet the educational requirement of each pool having a certified pool operator. We also provide information via social media, our website, e-mails, and mailings to help educate and inform industry and the public of pool safety issues, and pool inspection requirements. Additionally, we engage stakeholders in the discussion and adoption of updated rules and regulation related to pool safety.

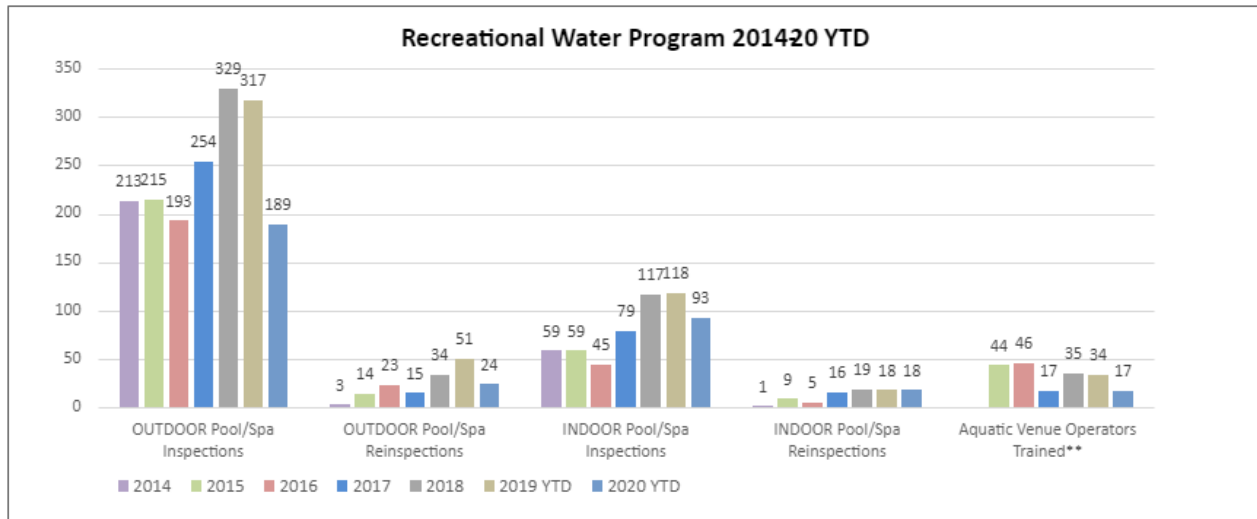
Services provided to the public:

- Review submitted design and construction plans
- Permit all public and semi-public swimming pools, spas and spraygrounds
- Inspect all permitted facilities for water chemistry balance, safety, and sanitation
- Respond to citizen complaints regarding recreational water facilities
- Respond to emergencies, including accidents, drowning, and water borne outbreaks
- Provide educational materials and information to the public regarding pool safety

WHY:

In the past two decades, there has been a substantial increase in the number of recreational water illness (RWI) outbreaks associated with swimming. Cryptosporidiosis, or “Crypto,” which can stay alive for days even in well-maintained pools, has become the leading cause of swimming pool-related outbreaks of diarrheal illness. According to most recent CDC data, approximately 500 outbreaks associated with treated recreational water occurred in the United States during 2000–2014. The most frequently reported outbreak setting was hotels. Approximately half of the outbreaks started during June–August. Rates of individual cases caused by *Cryptosporidium* peak in the summer, coinciding with the summer swim season. Recreational water can amplify smaller outbreaks into community-wide transmission. This happens when sick people introduce the parasite into multiple recreational water venues or other settings (e.g., child-care facilities). RWIs include a wide variety of infections, such as gastrointestinal, skin, ear, respiratory, eye, neurologic, and wound infections. The most reported RWI is diarrhea. Source: <http://www.cdc.gov/healthywater/swimming/rwi/>

Pool Inspection Program Activity	2020	2019	2018	2017	2016
Pool/spa inspections	282	435	446	333	238
Pool/spa re-inspections	42	69	53	31	28
Complaint investigations	1	3	6	3	8
Aquatic Venue Operators trained	17	34	35	17	46



**Aquatic Venue Operator class began 2015

ACHIEVEMENTS:

- All trending violations from the past few years did see a decrease 2020. Better knowledge in the updated Rules and Regulations for Pools/Spas from pool operators and providing further education from EH field staff could account for this decrease.
- Chlorine disinfectant levels decreased 2.1 % from 2019 levels.
- Second year of the Pool Quality of Excellence Award. This newly distinguished award recognizes facilities that continue to successfully follow the Clay County Rules and Regulations for Pools/Spas, exhibiting pool quality and safety practices and achieving exceptional inspection results during the calendar year. 23 Pools/Spas (6 yearly pools, 14 seasonal pools, 3 seasonal wading pools) Facilities qualified for the 2020 Pool Quality Award representing 19.5% of CCPHC regulated pool/spa facilities.
- The Top violations cited in 2020 were all critical items and/or foundational to reduce the occurrence of critical items focused on water quality and life safety. This speaks to a risk-based inspection utilized by all inspectors, focused on identifying and eliminating the most critical items that pose the greatest health or safety risks to patrons.
- Conducted a risk factor study for pool/spa violations.

STRENGTHS:

- Staff are knowledgeable about pool inspections and recreational water safety. All inspectors are Certified Pool Operators and Certified Pool Inspectors through the National Swimming Pool and Spa Foundation. Four new field staff will complete the CPO training in 2021.
- Updated Rules and Regulations went into effect in 2019 which incorporated many key elements of the CDC’s Model Aquatic Health Code.
- Collaboration with CCPHC Epidemiology staff in monitoring and responding to recreational water illnesses associated with licensed swimming pools in Clay County has enhanced outbreak response in recent years.



CLAY COUNTY

PUBLIC HEALTH CENTER



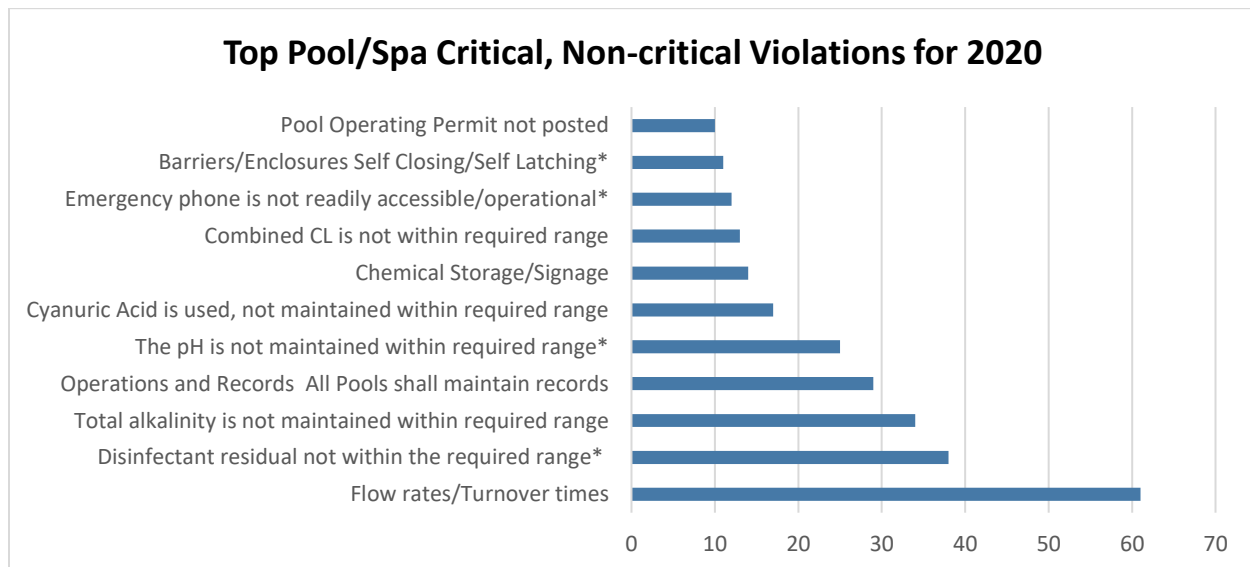
800 Haines Drive
Liberty, MO 64068
p. 816-595-4350
f. 816-595-4394
clayhealth.com

- Good working relationships and compliance with regulated facilities has allowed CCPHC environmental staff to maintain open lines of communication with permit holders in all situations.

CHALLENGES/BARRIERS:

- With the COVID-19 pandemic not all pools/spa were operational in 2020 with fewer routine inspection conducted.
- CCPHC encounters difficulties in communicating violations and initiating corrective action when many public pools are not monitored by a lifeguard and have no person in charge onsite during hours of operation.
- There are a limited number of seasonal pools that do not renew their annual permits prior to the Dec 31 deadline, rather waiting until just prior to the next pool season. This results in the assessment of late fees, and additional time from administrative assistants and inspectors to collect on past due fees prior to the issuance of an operating permit.
- A small number of pool operators have a history of non-compliance throughout the season/year with certain violations. This could be the result of staffing such as at a pool managed by an HOA, or violations related to physical facility and structure that may require additional budget and time to correct. CCPHC is working on a corrective action plan to be utilized with pool permit holders in these instances to improve compliance.

PROGRAM IN ACTION:

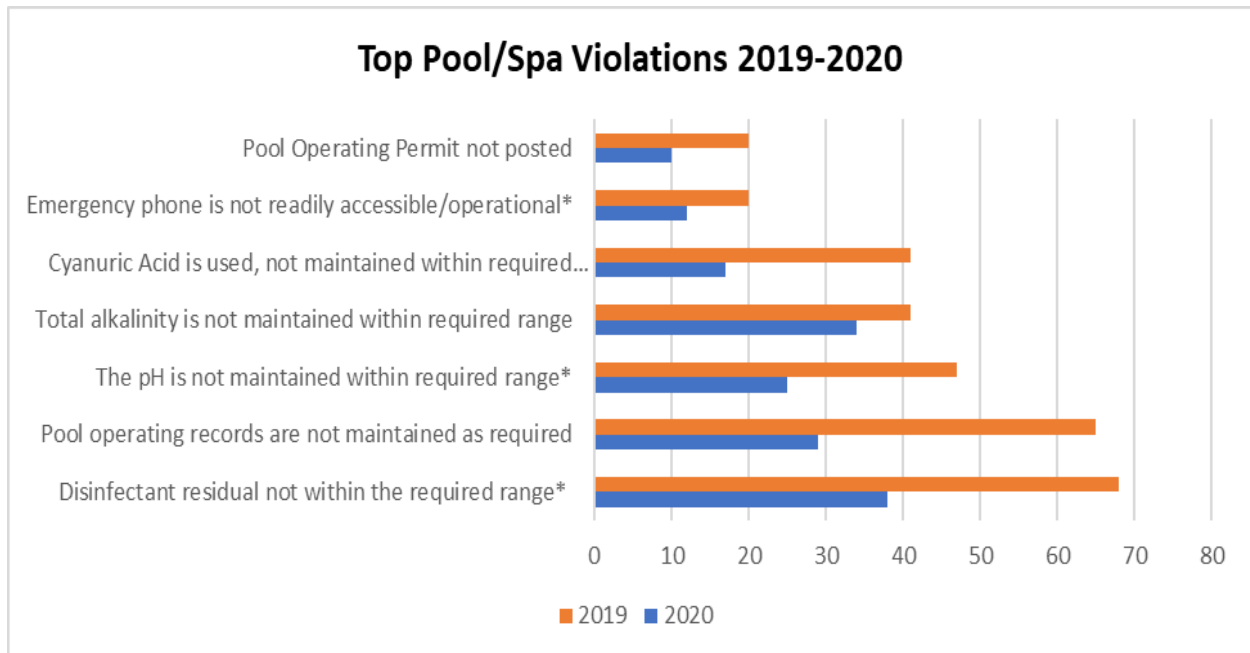




Item #	Reference #	Critical/Non-Critical Violation	Total	% Out
13	5(f)	Flow rates/Turnover times	61	21.6
1	5(d)	Disinfectant residual not within the required range*	38	13.5
4	5(d)	Total alkalinity is not maintained within required range	34	12
9	17(a)	Operations and Records All Pools shall maintain records	29	10.2
2	5(d)	The pH is not maintained within required range*	25	8.9
5	5(d)	Cyanuric Acid is used, not maintained within required range	17	6
18	8(c)	Chemical Storage/Signage	14	5
1	5(d)	Combined CL is not within required range	13	4.6
16	7(b)	Emergency phone is not readily accessible/operational*	12	4.3
14	7(g)	Barriers/Enclosures Self Closing/Self Latching*	11	4
21	12(b)	Pool Operating Permit not posted	10	3.5

*critical violations

** Outcome data: A baseline for disinfectant residual violations was established with 2018 data to be used for future strategic planning KPI measurement. Total count for 2018: disinfectant cited **49** times.



*critical violation

**Pool operating permits were not a debited violation prior to 2019



CLAY COUNTY

PUBLIC HEALTH CENTER

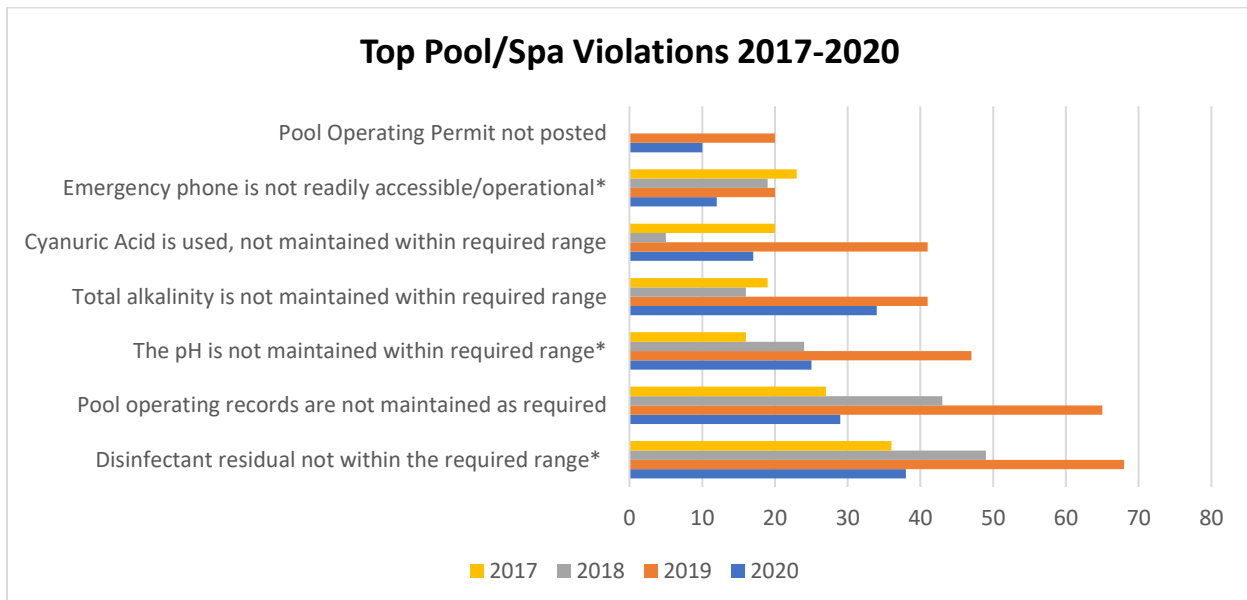


800 Haines Drive
 Liberty, MO 64068
 p. 816-595-4350
 f. 816-595-4394
clayhealth.com

Critical/ Non-Critical Violations	# times cited		% out	
	2020	2019	2020	2019
Disinfectant residual not within the required range*	38	68	13.5	15.6
Pool operating records are not maintained as required	29	65	10.2	14.9
The pH is not maintained within required range*	25	47	8.9	10.8
Total alkalinity is not maintained within required range	34	41	12	9.4
Cyanuric Acid is used, not maintained within required range	17	41	6	9.4
Emergency phone is not readily accessible/operational*	12	20	4.3	4.6
Pool Operating Permit not posted	10	20	3.5	4.6

*critical violation

- Pool/Spa Inspections 282 for 2020 compared to 435 in 2019. Pool/spa re-inspections 42 for 2020 compared to 69 in 2019.
- All trending violations from the past few years did see a decrease from 2019. Better knowledge in the updated Rules and Regulations for Pools/Spas from a pool operator and providing further education from EH field staff could account for this decrease. Along with the COVID-19 pandemic not all pools/spa were operational in 2020 with fewer routine inspection conducted.
- Chlorine disinfectant levels decreased 2.1 % from 2019 levels.
- Emergency phones are a high safety concern when conducting recreational water inspections and will always be a point of emphasizes.
- Flow rates and turnover times did however see a significant jump from 2019. Accounts from an updated Rules and Regulations for Pools/Spas in 2019.
- Flow turnover times are critical for proper filtration, CDC recommends all pools or spas have a turnover rate of 6 hours or less. Water that is recirculated three to four times per day, or every six to eight hours, will achieve 95 to 98 percent dilution of contaminated pool water with water that has been filtered and disinfected.





ONSITE WASTEWATER TREATMENT SYSTEMS (OWTS)

The mission of the onsite septic system inspection program is to administer and enforce minimum standards and criteria for the design, location, installation, use and maintenance of individual sewage disposal systems to protect surface and ground waters within the county and its surroundings and thereby promote the public health and general welfare of Clay County residents and visitors.

CCPHC Environmental Health Protection permits and inspects treatment and disposal systems less than 3,000 gallons. Environmental Health Protection staff:

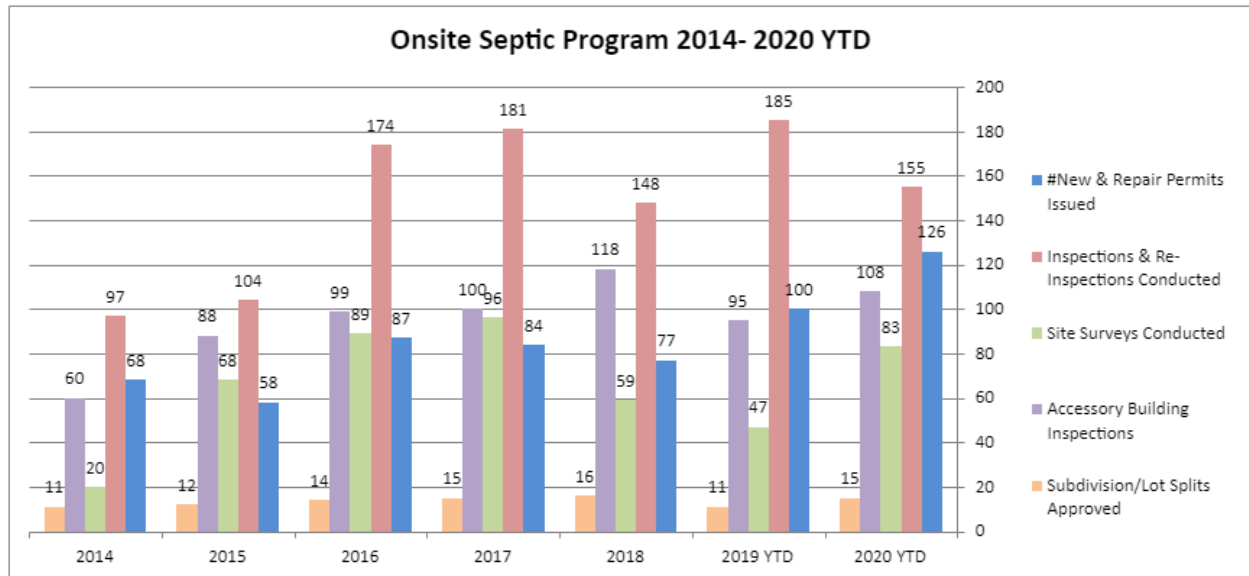
- Conduct construction inspections
- Issue onsite sewage construction and repair permits
- Perform complaint investigations
- Perform site approvals
- Review plans

WHY:

All incorporated areas of Clay County utilize public or private sewer systems for wastewater disposal and treatment. Most of the unincorporated areas of the county use onsite sewage disposal systems. Effective wastewater treatment is vital to maintaining public health. Onsite systems prevent contamination of surface waters and groundwater, which when installed and maintained properly, protects human and environmental health.

PROGRAM IN ACTION:

OWTS Activity	2020	2019	2018	2017	2016
New & repair construction permits	126	100	77	84	87
Routine and follow-up inspections	155	185	148	181	174
Complaint investigations	10	18	12	20	14
Site surveys	83	47	59	96	89
Accessory building inspections/approvals	108	95	118	100	99
Subdivision/lot split approvals	15	11	16	15	14



TRENDS:

As the county continues to grow and municipal sewer systems are expanded, more county residents will be able to connect to municipal sewer in lieu of installing and/or maintaining an OWTS. This continues to occur in developing parts of Kearney and Excelsior Springs.

Development of a geographic information system (GIS) has been a challenge in the past. In 2019, CCPHC community development staff will be partnering with MO DHSS to develop GIS mapping capabilities to eventually include septic systems.

ACHIEVEMENTS:

- All new field staff have been fully trained in basic and advanced OWT Systems from MO DHSS.
- Incorporated onsite and general complaints into the same inspection software used for food and pool inspections. This has helped with the management and coordination of the onsite and general complaints with having all EH Programs under one database and not having to go between 2 or 3 databases.
- CCPHC investigated 100% of onsite wastewater related complaints received by citizens (10 in 2020) in a timely manner.

STRENGTHS:

- County ordinance has several strengths over the state rules, particularly related to enforcement and repair of failing systems that pose a public health or environmental hazard.
- Cooperation with other jurisdictions is strong, allowing open communication on county requirements and discussion of onsite septic rule interpretations.



- Created a standardized process for training that includes classes with MO DHSS, continuing education courses, and internal shadowing followed by joint inspections.
- Improved understanding of septic system construction, maintenance, and troubleshooting across all staff through continuing education and field-based observation.
- Registered professionals in the county (installers, soil scientists, engineers) have been willing to work with CCPHC to share their knowledge and enhance ours for the common good.

CHALLENGES/BARRIERS:

- Inspection timing and frequency (on-demand, weather dependent) has been a challenge for both inspector and installers.
- The amount of time required to conduct the plan review, approval, and inspections at multiple points of installation of an onsite septic system is significant. Additionally, installation of most systems occurs in the most rural parts of the county, which means significant travel time is required to complete the work of inspecting each onsite septic system (installation or complaint) over multiple trips.
- Annually there was a 26% increase in onsite wastewater permits applied for.
- CCPHC completed 16.2% fewer inspections in 2020 than the previous year.

Lodging Inspections

CCPHC assesses compliance with state hotel regulations at 19 hotels in Clay County to protect public health and safety. This is an increase in number of inspected facilities from previous years due to a new hotel that opened in Liberty. The lodging inspection program conducts annual hotel inspections and complaint investigations to assure compliance with Missouri laws governing lodging establishments. The mission of the lodging inspection program is to minimize hazards to health and safety by conducting annual licensing inspections and complaint investigations of lodging facilities. These are required under the LPHA Participation Agreement with MO DHSS.

Lodging Inspection Activity	2020	2019	2018	2017	2016
Routine/annual inspections	18*	18*	17	16*	16*
Follow-up inspections	16	22	18	13	13
Complaint investigations	6	11	10	7	6

*One annual inspection completed by DHSS staff, not counted in this number.

Lodging inspections re-implemented in Clay County in 2015

ACHIEVEMENTS:

- SEHS Victoria Miller coordinated all routine and re-inspections with respected inspectors to follow MO DHSS new requests regarding their rule. These new requests were made at a lodging training she attended.
- Lodging complaints were 100% addressed and resolved in a timely manner.



CLAY COUNTY

PUBLIC HEALTH CENTER



800 Haines Drive
Liberty, MO 64068
p. 816-595-4350
f. 816-595-4394
clayhealth.com

STRENGTHS:

- CCPHC has a good working relationship with local DHSS staff at the regional office located in Raytown, and DHSS readily offers regulation interpretation and accepts forwarded cases for completing complaint investigations of licensed hotels.
- CCPHC Environmental Health Specialists have all received one-on-one lodging inspection training from MO DHSS staff to conduct lodging inspections accurately and consistently per the state rules.

CHALLENGES/BARRIERS:

- CCPHC has a 66% re-inspection rate on annual and complaint inspections combined. Additionally, CCPHC has a 26% referral rate (down from 56% in 2019) back to DHSS for hotels that have failed their 2nd re-inspection and need additional follow-up prior to licensure.
- Lodging inspection training is limited to when DHSS holds a class, which historically been about once every 3 years. The MO DHSS Environmental Health Operational Guidelines (EHOG) was updated in late 2019, which should bring improved guidance to lodging inspection requirements.
- New lodging facilities have increased over the last couple of years 2018-2020. (6 new, 2 pending)

Vector Control Program

Clay County is a habitat to multiple vectors known to spread diseases, including a variety of insects such as mosquitoes and ticks. Vectors spread disease acting as the vehicle for the disease-causing parasite, bacteria, or virus. Vector-borne diseases that are transmittable to humans include: West Nile Virus (mosquito); Lyme disease (ticks); Rocky Mountain spotted fever (tick); ehrlichiosis (tick); and rabies (bite from an infected mammal).

CCPHC provides inspections on public or private property within Clay County for the control of mosquitoes and other insects that may be harmful to health or otherwise a nuisance. Additionally, provide public education on remediation of environmental conditions that create breeding grounds for vectors and education on prevention of mosquito and tick bites.

The number of vector-borne diseases and exposures in Clay County is relatively low. Since 2008, there have been 7 cases of mosquito-borne disease, 68 cases of tick-borne disease, and 54 cases of animals with rabies or rabies exposures (zoonotic disease). The number of reported cases of rabies exposures increased markedly from 2013 to 2017, likely attributed to an increase in the reported number of animal bite cases in Clay County, which resulted in an increase in prophylaxis for rabies.



CLAY COUNTY
PUBLIC HEALTH CENTER



800 Haines Drive
 Liberty, MO 64068
 p. 816-595-4350
 f. 816-595-4394
clayhealth.com

PROGRAM IN ACTION:

Vector Control Activity	2020	2019	2018	2017	2016
Animal specimens sent to State PHL	21	46	15	17	14
• Negative rabies tests	18	45	15	17	14
• Positive rabies tests	0	1	0	0	0
• Unsatisfactory rabies tests	3	0	0	0	0
Vector complaints investigated	1	4	3	1	5

WHY:

Approximately 80% of West Nile virus infectious cases are asymptomatic. Although neuroinvasive disease occurs in less than 1% of infected individuals, it is associated with high mortality. With dengue fever, children are at higher risk of severe disease and intensive care is required for severely ill patients, including intravenous fluids, blood or plasma transfusion and medicines. The Zika virus is a mosquito-transmitted infection related to dengue, yellow fever, and West Nile virus. The W.H.O. and the Centers for Disease Control and Prevention have urged testing for all pregnant women who have been to the Caribbean and Latin America. Health officials have also said people should refrain from unprotected sex with partners who have visited these regions. The Zika virus is linked to microcephaly and brain damage in newborns, as well as blindness, deafness, seizures, and other congenital defects. In adults, the virus is linked to a form of temporary paralysis, called Guillain-Barré syndrome.

Despite the availability of low-cost and effective antibiotic therapy, tick-borne rickettsial diseases continue to cause severe illness and death in otherwise healthy adults and children. The greatest challenge to clinicians is diagnosing these infections early in their clinical course when antibiotic therapy is most effective.

Vector-borne Diseases in Clay County	2020*	2019	2018	2017	2016
Dengue	0	0	0	0	1
Malaria	0	1	0	0	0
Zika	0	0	0	0	1
Tick-borne Diseases	0	11	6	4	8
Animal Rabies / Rabies Exposures	21/1	113/1	88/9	107/22	73/3

*Provisional

ACHIEVEMENTS:

- Incorporated onsite and general complaints into the same inspection software used for food and pool inspections. This has helped with the management and coordination of the onsite and general complaints with having all EH Programs under one database and not having to go between 2 or 3 databases.



STRENGTHS:

- CCPHC provided timely response to vector complaints received from citizens in 2020, with all complaints resolved as prescribed by the ordinance.

CHALLENGES/BARRIERS:

- Many municipalities may already have existing ordinances related to property maintenance and pest prevention and control that may run parallel with CCPHC’s vector control ordinance. An assessment needs to be done to determine which municipalities have this and how we may be able to work together to improve vector control within the county.
- The vector control program is currently structured for complaint response based on the current ordinance that is specific to mosquitoes and mosquito breeding-areas. Should the need arise, capacity beyond that may require additional resources.

COVID-19 PANDEMIC ACTIVITES

- Investigated complaints regarding Emergency Order.
- Conducted site visits for compliance.
- Investigated COVID-19 Outbreaks with Epidemiology.
- Oversaw Epi and Vaccination call centers.
- Reviewed gathering exemption applications.

