Carbapenem-resistant *Enterobacteriaceae* Surveillance Report

Department of Public Health
CITY OF PHILADELPHIA

April - June, 2020

Carbapenem-resistant *Enterobacteriaceae* (CRE) are a family of bacteria with high levels of resistance to antibiotics. Data from reported, confirmed CRE cases, to the Philadelphia Department of Public Health, occurring in April-June 2020 (n=63) are displayed. 17 of the cases were lab-confirmed to be carbapenemase-producing CRE (CP-CRE), 4 were non-CP CRE and 42 were not tested. Available CP mechanisms are shown in the table below. Not all isolates were sent for mechanism testing. As of January 2020, these reports will exclude species in the Morganellaceae family such as *Morganella morganii, Providencia spp.* and *Proteus Spp* which are no longer classified as Enterobacteriaceae .

Carbapenemase-Producing (CP) Status of Confirmed Cases	
CP-CRE	17 (27%)
Non-CP CRE	4 (6%)
CP Status Pending/ Not Tested	42 (67%)
Total Confirmed CRE Cases	**63**

COVID-19 significantly impacted how many isolates were tested for carbapenemase production this quarter

CRE Counts[1], by Genus Species and Mechanism (n=63)

Genus Species	Total CRE n (%)	Total CP-CRE	KPC	NDM	OXA-48	IMP	VIM
Klebsiella pneumoniae	30 (48.6)	7	7	.	.	.	.
Enterobacter cloacae	11 (17.5)	5	5	.	.	.	.
Other *Klebsiella Spp*	6 (9.5)	1	1	.	.	.	.
Escherichia coli	4 (6.4)	2	1	.	.	.	.
Other Enterobacteriaceae	4 (6.4)	0	.	.	.	.	.
Enterobacter aerogenes	3 (4.8)	0	.	.	.	.	.
Klebsiella oxytoca	2 (2.6)	1	1	.	.	.	.
Other *Citrobacter Spp*	2 (2.6)	1	1	1	.	.	.
Unknown species	1 (1.6)	0	.	.	.	.	.
Total	**63**	**17**	**16**	**1**	**0**	**0**	**0**

[1]not all isolates sent for mechanism testing, some isolates have more than one mechanism

Epidemiological Characteristics of CRE Cases (n=66)

Characteristics	Yes	No	Unknown
Philadelphia Resident	51 (81.0)	12 (19.0)	0 (0.0)
LTCF Resident	11 (17.5)	5 (7.9)	47 (74.6)
Invasive Device(s)	22 (34.9)	5 (7.9)	36 (57.1)

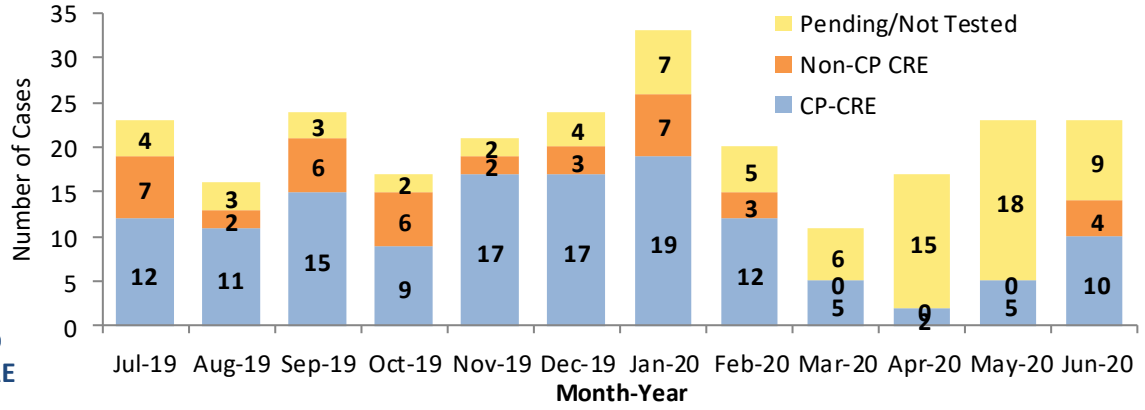
CRE Cases, by Carbapenemase-Producing (CP) Status: July 2019 – June 2020

252
CRE Cases

174 (68%)
Tested for CP Status

77%
CP-CRE

23%
Non-CP CRE



Report CRE cases using the CRE report form available at hip.phila.gov