

## Michigan Hepatitis A 2016-2018 Outbreak Summary

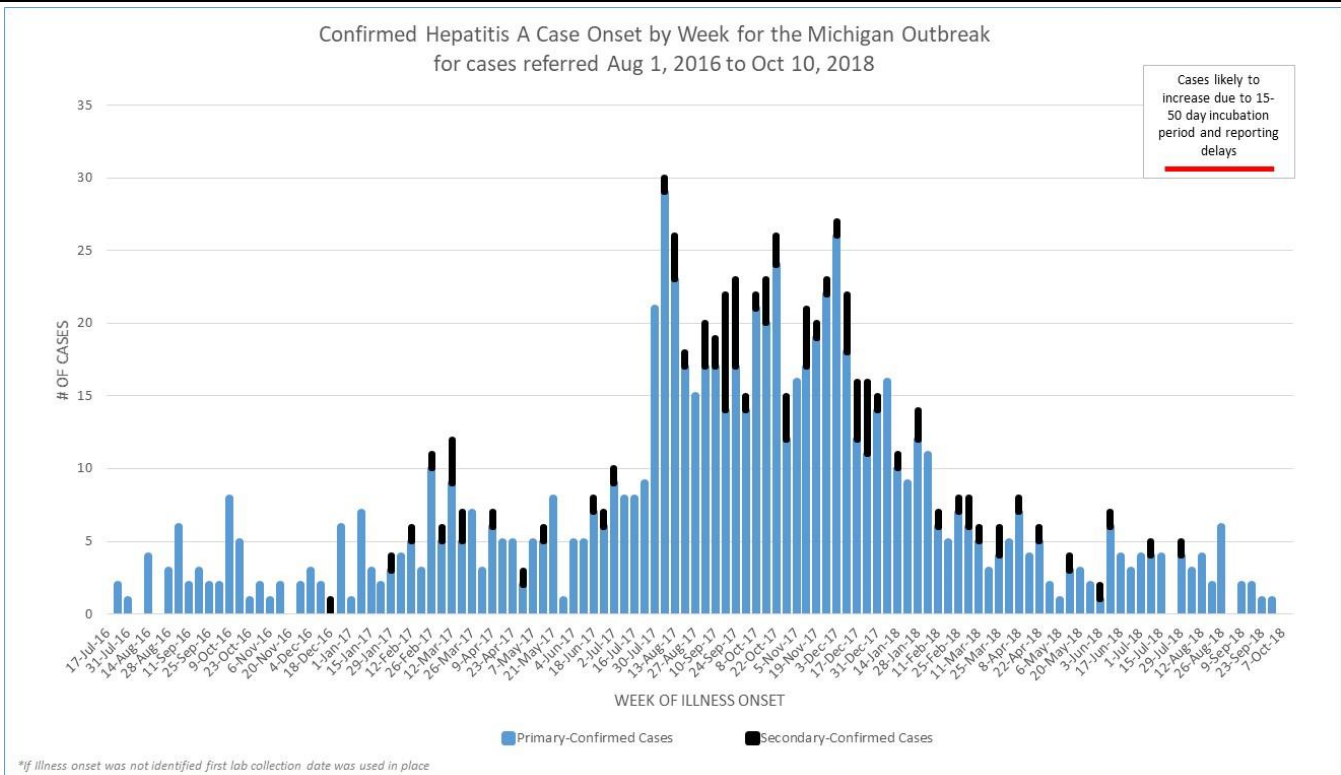
<b>Epi Summary for Hepatitis A Cases in Michigan (Genesee, Ingham, Macomb, Oakland, Shiawassee, &amp; Wayne)*† for Confirmed Cases Referred August 1, 2016 – October 10, 2018‡</b>									
	2 <sup>nd</sup> Half CY2016	1 <sup>st</sup> Half CY2017	2 <sup>nd</sup> Half CY2017	1 <sup>st</sup> Half CY2018	Jul-18	Aug-18	Sept-18	Oct-18	Total
<b>Total # of Cases (by Onset)</b>	58	138	495	169	13	19	6	1	899
<b># Primary Confirmed Cases w/ Outbreak Strains</b>	21	73	314	112	10	13	2	0	545
<b># Primary Confirmed Cases w/out sequencing</b>	36	51	125	42	2	5	4	1	266
<b># Secondary Confirmed Cases</b>	1	14	56	15	1	1	0	0	88
<b>Female, n (%)</b>	20 (34.5)	49 (35.5)	171 (34.5)	59 (34.9)	5 (38.5)	4 (21.1)	5 (83.3)	-	313 (34.8)
<b>Hospitalized, n (%)</b>	50 (86.2)	117 (84.8)	392 (79.2)	136 (80.5)	9 (69.2)	13 (68.4)	5 (83.3)	-	723 (80.4)
<b>Min Age (years)</b>	24	21	<1	2	28	27	24	-	<1
<b>Max Age (years)</b>	83	86	90	87	57	75	53	-	90
<b>Median Age (years)</b>	44.5	42.5	40	39	36	42	39	-	40
<b>Deaths, n (%)</b>	4 (6.9)	9 (6.5)	11 (2.2)	3 (1.8)	0 (0.0)	1 (5.3)	0 (0.0)	-	28 (3.1)
<b>Data below excludes secondary cases</b>									
<b>No Substance Abuse + No Homeless/Transient Living, n (%)</b>	32 (56.1)	38 (30.6)	184 (41.9)	51 (33.1)	4 (33.3)	6 (33.3)	1 (16.7)	-	316 (39.0)
<b>Documented Substance Abuse, n (%)</b>	19 (33.3)	77 (62.1)	211 (48.1)	91 (59.1)	8 (66.7)	10 (55.6)	4 (66.7)	-	421 (51.9)
<b>Homeless/Transient Living, n (%)</b>	10 (17.5)	25 (20.2)	47 (10.7)	24 (15.6)	4 (33.3)	2 (11.1)	0 (0.0)	-	112 (13.8)
<b>History of Hepatitis B, n (%)</b>	3 (5.3)	4 (3.2)	9 (2.1)	9 (5.8)	2 (16.7)	1 (5.6)	0 (0.0)	-	28 (3.5)
<b>History of Hepatitis C, n (%)</b>	10 (17.5)	39 (31.5)	125 (28.5)	33 (21.4)	3 (25.0)	3 (16.7)	2 (33.3)	-	215 (26.5)
<b>Men Who Have Sex with Men (MSM), n (%) -Data includes only male cases</b>	1 (2.7)	3 (3.7)	57 (18.9)	15 (14.6)	0 (0.0)	1 (7.1)	0 (0.0)	-	77 (14.1)
<b>Correctional Facility Inmates, n (%)</b>	1 (1.8)	8 (6.5)	40 (9.1)	14 (9.1)	1 (8.3)	1 (5.6)	0 (0.0)	-	65 (8.0)
<b>Healthcare Worker, n (%)</b>	1 (1.8)	1 (0.8)	15 (3.4)	6 (3.9)	0 (0.0)	0 (0.0)	1 (16.7)	-	24 (3.0)
<b>Food Worker, n (%)</b>	2 (3.5)	4 (3.2)	22 (5.0)	9 (5.8)	0 (0.0)	2 (11.1)	2 (33.3)	-	41 (5.1)
<b>Cases Lost to Follow-up, n (%)</b>	14 (24.6)	41 (33.1)	85 (19.4)	16 (10.4)	2 (16.7)	2 (11.1)	2 (33.3)	-	162 (20.0)

\*Also includes cases from Allegan, Bay, Clare, Hillsdale, Huron, Ionia, Kent, Leelanau, Lenawee, Newaygo, Schoolcraft & Van Buren Counties and a MDOC Facility (Jackson County) that were found to have the outbreak strain when sequenced but do not meet the criteria to be an outbreak jurisdiction.

† Includes cases from counties that have met the criteria to be removed as an outbreak jurisdiction. That includes the counties of Calhoun (7 cases), City of Detroit (172 cases), Clinton (6 cases) Eaton (5 cases), Grand Traverse (4 cases), Gratiot (3 cases), Isabella (8 cases), Lapeer (7 cases), Livingston (6 cases), Mecosta (2 cases), Midland (3 cases), Monroe (18 cases), Saginaw (4 cases), Sanilac (6 cases), and St. Clair (33 cases), and Washtenaw (19 cases).

‡ Analysis excludes cases that have been sequenced and found to be PCR Negative, have a different strain from the outbreak strains, or have international travel in the 2-6 weeks prior to illness onset.

§ Source of data: MDSS



*Report is a preliminary ad hoc analysis. Information to be considered DRAFT.*

Michigan Hepatitis A 2016-2018 Outbreak Summary

<b>Confirmed Hepatitis A Cases Meeting the Michigan Hep A Outbreak Case Definition</b>		
<b>County (or City)</b>	<b>Total # of Cases as of October 3, 2018</b>	<b>Total # of Cases as of October 10, 2018</b>
City of Detroit	172	172
Allegan	2	2
Bay	1	1
Calhoun	7	7
Clare	1	1
Clinton	6	6
Eaton	5	5
Genesee	28	29
Grand Traverse	4	4
Gratiot	3	3
Hillsdale	1	1
Huron	1	1
Ingham	29	29
Ionia	1	1
Isabella	8	8
Kent	3	3
Lapeer	7	7
Leelanau	1	1
Lenawee	1	1
Livingston	6	6
Macomb	222	222
Mecosta	2	2
Midland	3	3
Monroe	18	18
Newaygo	1	1
Oakland	120	120
Saginaw	4	4
Sanilac	6	6
Schoolcraft	1	1
Shiawassee	20	21
St. Clair	33	33
Van Buren	1	1
Washtenaw	19	19
Wayne	159	159
Other*	1	1
<b>Total</b>	<b>897</b>	<b>899</b>
*Jackson MDOC		