

## Michigan Hepatitis A 2016-2018 Outbreak Summary

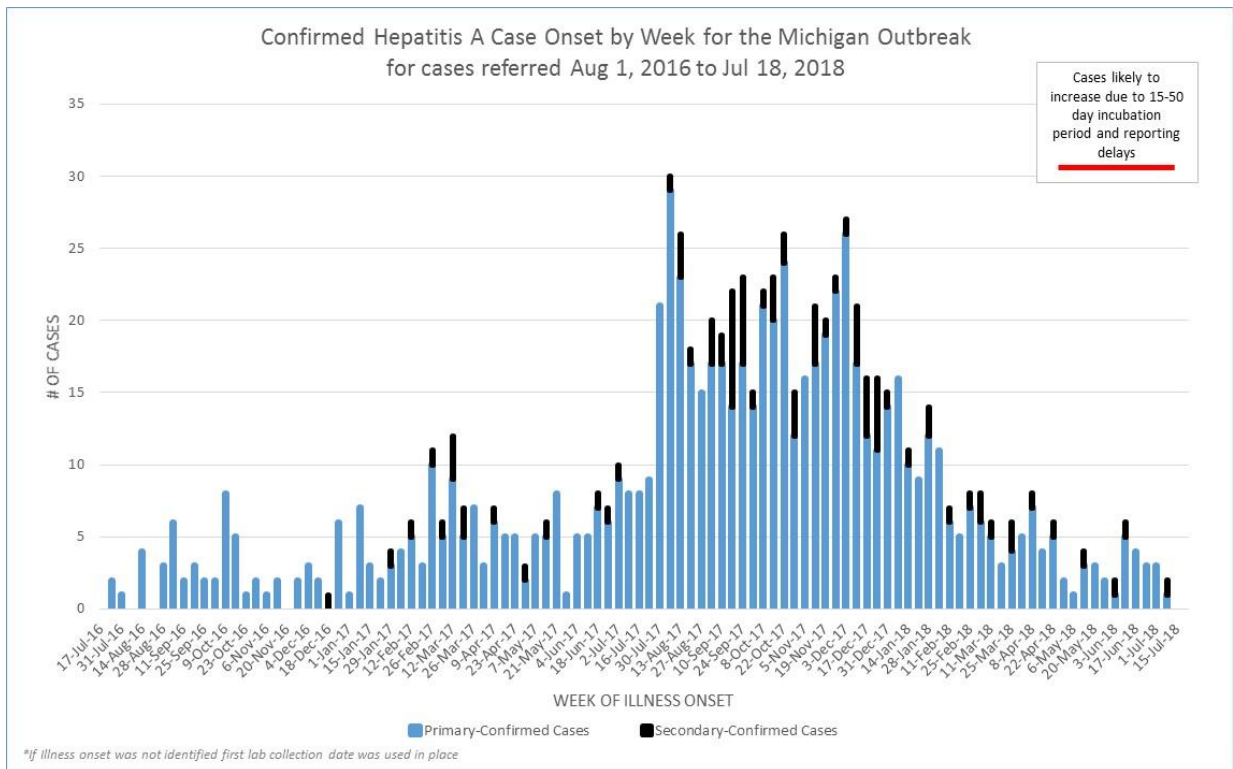
Epi Summary for Hepatitis A Cases in Michigan (City of Detroit, Genesee, Macomb, Midland, Monroe, Oakland, St. Clair, Shiawassee, & Wayne)**† for Confirmed Cases Referred August 1, 2016 – July 18, 2018 <sup>‡</sup>									
	2 <sup>nd</sup> Half CY2016	1 <sup>st</sup> Half CY2017	2 <sup>nd</sup> Half CY2017	Q1 CY2018	Apr-18	May-18	Jun-18	Jul-18	Total
<b>Total # of Cases (by Onset)</b>	58	138	494	118	23	11	16	5	863
<b># Primary Confirmed Cases w/ Outbreak Strains</b>	21	73	314	76	12	9	12	0	517
<b># Primary Confirmed Cases w/out sequencing</b>	36	51	124	32	9	1	2	4	259
<b># Secondary Confirmed Cases</b>	1	14	56	10	2	1	2	1	87
<b>Female, n (%)</b>	20 (34.5)	49 (35.5)	171 (34.6)	42 (35.6)	10 (43.5)	4 (36.4)	3 (18.8)	1 (20.0)	300 (34.8)
<b>Hospitalized, n (%)</b>	49 (84.5)	117 (84.8)	391 (79.1)	91 (77.1)	20 (87.0)	10 (90.9)	14 (87.5)	3 (60.0)	695 (80.5)
<b>Min Age (years)</b>	24	21	<1	2	18	22	26	28	<1
<b>Max Age (years)</b>	83	86	90	87	85	57	72	52	90
<b>Median Age (years)</b>	44.5	42.5	40	37.5	38	34	36	34	40
<b>Deaths, n (%)</b>	4 (6.9)	9 (6.5)	11 (2.2)	2 (1.7)	1 (4.3)	0 (0.0)	0 (0.0)	0 (0.0)	27 (3.1)
Data below excludes secondary cases									
<b>No Substance Abuse + No Homeless/Transient Living, n (%)</b>	32 (56.1)	38 (30.6)	184 (42.0)	37 (34.3)	9 (42.9)	2 (20.0)	3 (21.4)	2 (50.0)	307 (39.6)
<b>Documented Substance Abuse, n (%)</b>	19 (33.3)	77 (62.1)	210 (47.9)	63 (58.3)	9 (42.9)	7 (70.0)	11 (78.6)	2 (50.0)	398 (51.3)
<b>Homeless/Transient Living, n (%)</b>	10 (17.5)	25 (20.2)	47 (10.7)	16 (14.8)	3 (14.3)	2 (20.0)	3 (21.4)	2 (50.0)	108 (13.9)
<b>History of Hepatitis B, n (%)</b>	3 (5.3)	4 (3.2)	9 (2.1)	5 (4.6)	0 (0.0)	1 (10.0)	3 (21.4)	1 (25.0)	26 (3.4)
<b>History of Hepatitis C, n (%)</b>	10 (17.5)	39 (31.5)	125 (28.5)	21 (19.4)	5 (23.8)	4 (40.0)	2 (14.3)	1 (25.0)	207 (26.7)
<b>Men Who Have Sex with Men (MSM), n (%) -Data includes only male cases</b>	1 (2.7)	3 (3.7)	57 (18.9)	13 (18.3)	2 (15.4)	0 (0.0)	0 (0.0)	0 (0.0)	76 (14.5)
<b>Correctional Facility Inmates, n (%)</b>	1 (1.8)	8 (6.5)	40 (9.1)	6 (5.6)	2 (9.5)	4 (40.0)	2 (14.3)	1 (25.0)	64 (8.2)
<b>Healthcare Worker, n (%)</b>	1 (1.8)	1 (0.8)	15 (3.4)	3 (2.8)	2 (9.5)	1 (10.0)	0 (0.0)	0 (0.0)	23 (3.0)
<b>Food Worker, n (%)</b>	2 (3.5)	4 (3.2)	22 (5.0)	6 (5.6)	1 (4.8)	1 (10.0)	0 (0.0)	0 (0.0)	36 (4.6)
<b>Cases Lost to Follow-up, n (%)</b>	14 (24.6)	39 (31.5)	84 (19.2)	13 (12.0)	1 (4.8)	1 (10.0)	1 (7.1)	0 (0.0)	153 (19.7)

\*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), Clinton (4 cases), Eaton (5 cases), Grand Traverse (4 cases), Gratiot (3 cases), Ingham (26 cases), Isabella (8 cases), Lapeer (7 cases), Livingston (6 cases), Mecosta (2 cases), Saginaw (4 cases), Sanilac (6 cases), and Washtenaw (18 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 July 11, 2018</b>	<b>Total # of Cases as of July 18, 2018</b>
City of Detroit	173	172
Allegan	2	2
Bay	1	1
Calhoun	7	7
Clare	1	1
Clinton	4	4
Eaton	5	5
Genesee	22	24
Grand Traverse	4	4
Gratiot	3	3
Hillsdale	1	1
Huron	1	1
Ingham	26	26
Ionia	1	1
Isabella	8	8
Kent	2	2
Lapeer	7	7
Leelanau	1	1
Lenawee	1	1
Livingston	6	6
Macomb	220	221
Mecosta	2	2
Midland	3	3
Monroe	18	18
Newaygo	1	1
Oakland	117	118
Saginaw	4	4
Sanilac	6	6
Schoolcraft	1	1
Shiawassee	13	14
St. Clair	34	33
Van Buren	1	1
Washtenaw	18	18
Wayne	144	145
Other*	1	1
Total	859	863
*Jackson MDOC		