Hepatitis C 2014 - 2018

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About this report

The Ohio Alliance for Innovation in Population Health is a collaborative of over thirty partner organizations. By aligning the resources and expertise of state universities, researchers, hospital associations, healthcare providers and public health experts, the Alliance works to solve the most complex and pressing health problems in the state.

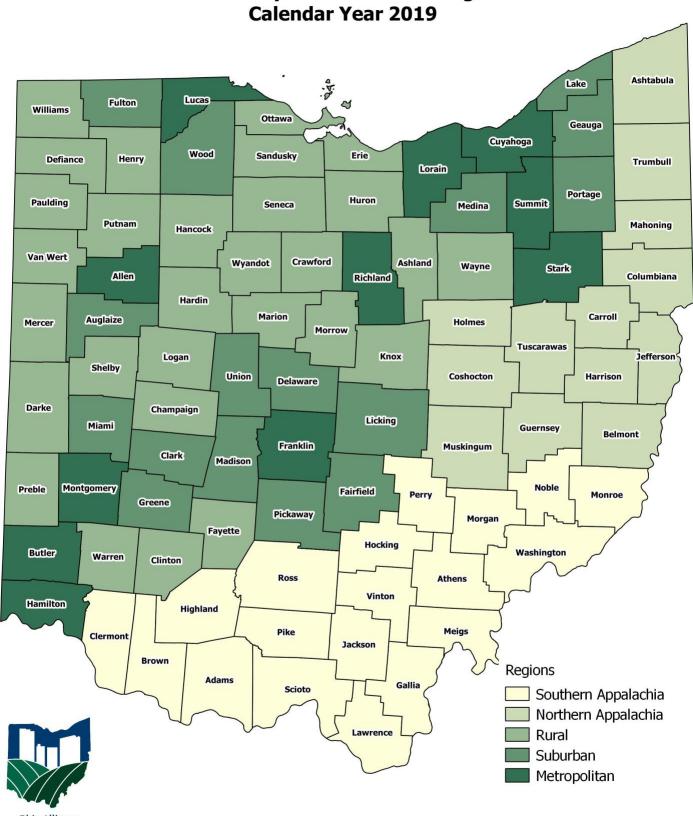
The following findings and figures are based on data from the Hepatitis Surveillance Program, a service of the Ohio Department of Health which is responsible for the collection, analysis, interpretation and dissemination of population-based information about persons diagnosed with non-perinatal Hepatitis B, Hepatitis C and Hepatitis D viruses in Ohio. ODH specifically disclaims responsibility for any analyses, interpretations or conclusions.

Key Findings

This monograph focuses on Hepatitis C rates within the state of Ohio during a five-year study period from 2014 through 2018. Significant attention has been drawn to the severity of opioid overdose deaths within Ohio's Appalachian counties and overdose deaths are an important measure of the impact of the opioid epidemic in our state. However, it is important to note that overdose death rates can be influenced by a wide range of factors such as the accuracy of coroner records, the availability of treatment, and the use of naloxone by emergency responders. Hepatitis C is often linked to intravenous (IV) drug use since one of the major sources of infection is the practice of sharing previously used needles.

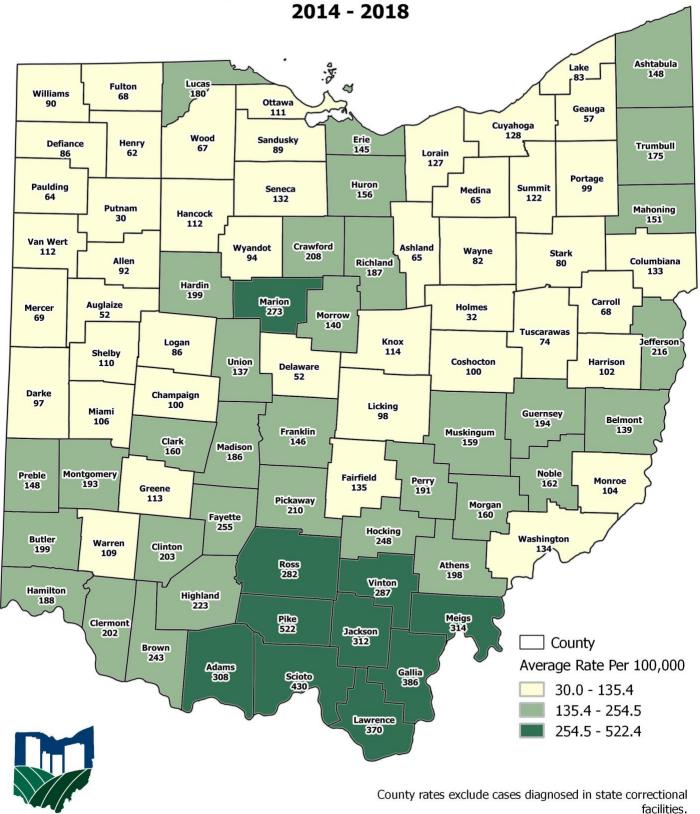
The following findings illustrate the variability of reported Hepatitis C incidents throughout the eightyeight counties in Ohio, five designated cultural regions and key demographic characteristics:

- 1. Analyses of statewide Hepatitis C incidents shows increasing rates from 2014 through 2016 and broad declines in 2017 and 2018. This would suggest that IV drug use in Ohio may have peaked in 2016 and declined in the two latter years of the study period.
- 2. Five southern Appalachian counties (Pike, Scioto, Gallia, Lawrence and Meigs) exhibited the highest five-year average Hepatitis C rates for the study period.
- 3. Putnam, Holmes, Delaware, Auglaize and Geauga exhibited the lowest five-year average rates for the study period.
- 4. The southern Appalachian region exhibited consistently higher Hepatitis C rates than the remainder of Ohio. This finding supports the notion that Appalachian Ohio has been the most impacted by the opioid epidemic. The metropolitan counties, northern Appalachia, rural non-Appalachian and suburban counties followed.
- 5. Ohioans between the ages of 20 and 29 exhibited the highest Hepatitis C rates, followed by persons between 30 39, 50 59, 40 -49 and persons 60 and older. Few incidents of Hepatitis C were recorded for persons nineteen and under. (*Figure 9*).
- 6. Males were more likely to exhibit Hepatitis C than females. (Figure 8).
- 7. White Ohioans exhibited the highest Hepatitis C rates followed closely by African Americans. Hepatitis C rates for Native Americans and Asian Americans followed distantly. *(Figure 10).*



Counties by OAIPH Defined Regions

Ohio Alliance for Innovation in Population Health



Average Rate per 100,000 HCV Cases



Source: Ohio Department of Health, Hepatitis Surveillance Program Data reported through 5/13/2019.

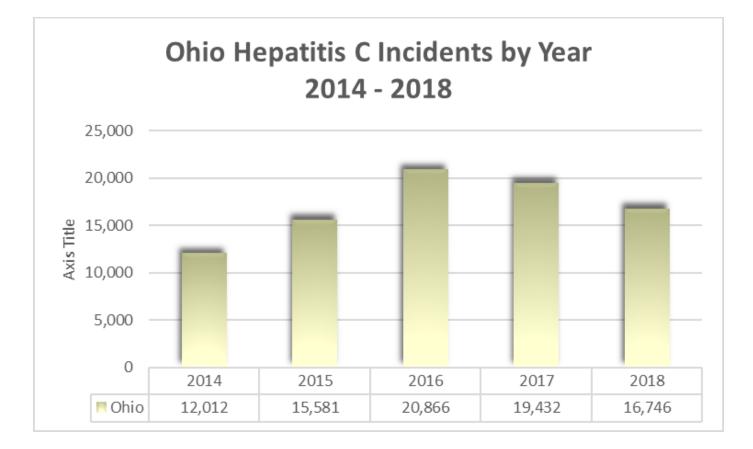
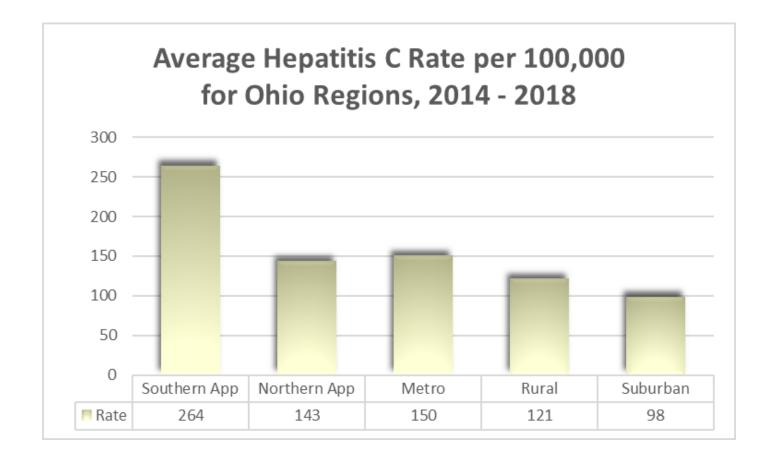


Figure 4



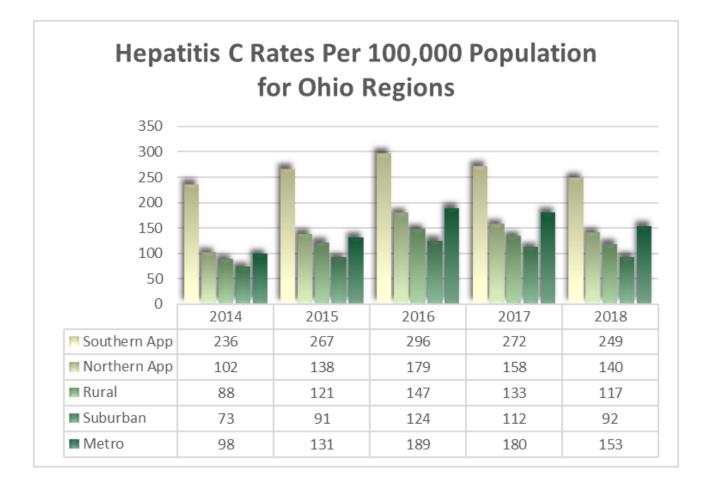
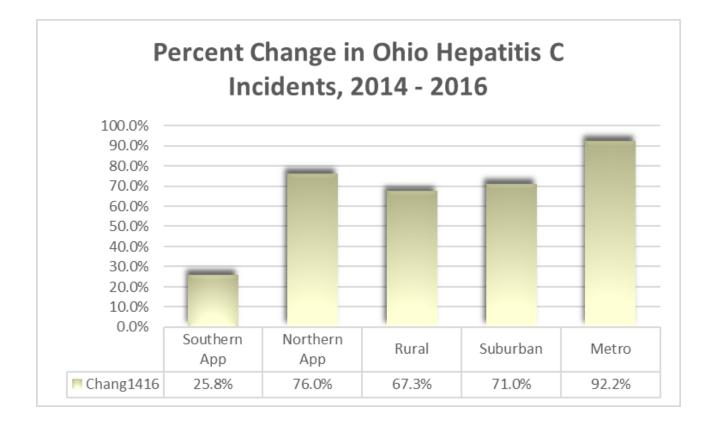


Figure 6



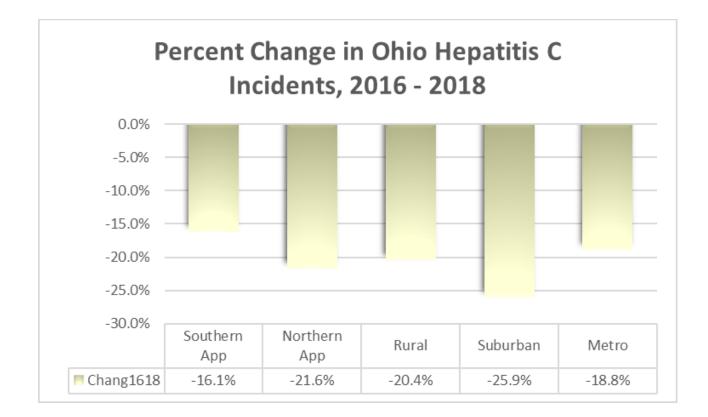
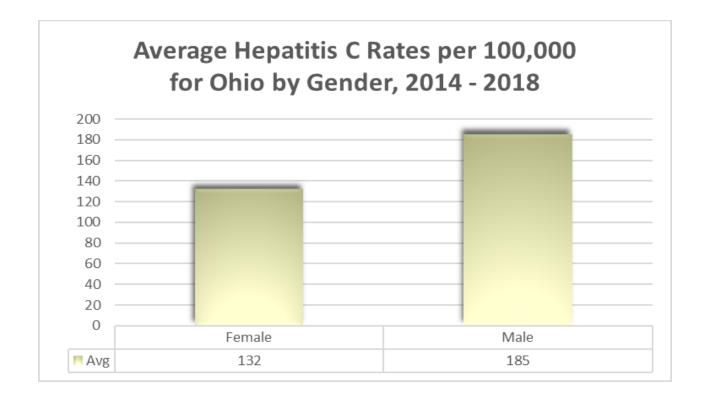


Figure 8



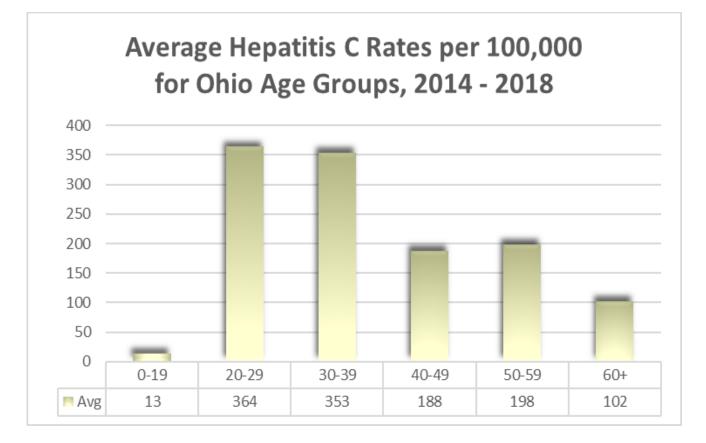
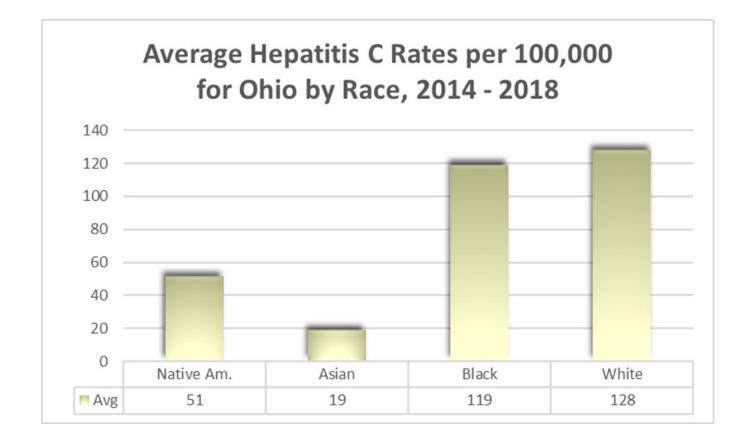


Figure 10



| COUNTY | OAIPH | POP. | HCV | HCV | AVG RATE | RANK |
|------------|--------|-----------------|---------|-------|----------|------|
| | REGION | 2015 | 14 - 18 | AVG | 100K | |
| Adams | Арр | 28,024 | 431 | 86 | 308 | 7 |
| Allen | Met | 104,425 | 479 | 96 | 92 | 67 |
| Ashland | Rur | 53,213 | 172 | 34 | 65 | 81 |
| Ashtabula | AppN | 98,632 | 731 | 146 | 148 | 37 |
| Athens | Арр | 65,886 | 652 | 130 | 198 | 22 |
| Auglaize | Sub | 45,876 | 120 | 24 | 52 | 85 |
| Belmont | AppN | 69,154 | 480 | 96 | 139 | 42 |
| Brown | Арр | 43,839 | 533 | 107 | 243 | 13 |
| Butler | Met | 376,353 | 3,748 | 750 | 199 | 21 |
| Carroll | AppN | 27,811 | 95 | 19 | 68 | 77 |
| Champaign | Rur | 38,987 | 195 | 39 | 100 | 62 |
| Clark | Sub | 135,959 | 1,085 | 217 | 160 | 33 |
| Clermont | Арр | 201,973 | 2,037 | 407 | 202 | 19 |
| Clinton | Rur | 41,917 | 426 | 85 | 203 | 18 |
| Columbiana | AppN | 104,806 | 696 | 139 | 133 | 46 |
| Coshocton | AppN | 36,569 | 183 | 37 | 100 | 61 |
| Crawford | Rur | 42,306 | 441 | 88 | 208 | 17 |
| Cuyahoga | Met | 1,255,921 | 8,029 | 1,606 | 128 | 48 |
| Darke | Rur | 52,076 | 253 | 51 | 97 | 65 |
| Defiance | Rur | 38,352 | 164 | 33 | 86 | 71 |
| Delaware | Sub | 193,013 | 498 | 100 | 52 | 86 |
| Erie | Rur | 75,550 | 546 | 109 | 145 | 40 |
| Fairfield | Sub | 151,408 | 1,025 | 205 | 135 | 44 |
| Fayette | Rur | 28,679 | 365 | 73 | 255 | 11 |
| Franklin | Met | 1,251,722 | 9,122 | 1,824 | 146 | 39 |
| Fulton | Sub | 42,537 | 144 | 29 | 68 | 78 |
| Gallia | Арр | 30,142 | 581 | 116 | 386 | 3 |
| Geauga | Sub | 94,102 | 270 | 54 | 57 | 84 |
| Greene | Sub | 164,427 | 933 | 187 | 113 | 52 |
| Guernsey | AppN | 39,258 | 380 | 76 | 194 | 23 |
| Hamilton | Met | 807,598 | 7,574 | 1,515 | 188 | 26 |
| Hancock | Rur | 75,573 | 422 | 84 | 112 | 54 |
| Hardin | Rur | 31,682 | 316 | 63 | 199 | 20 |
| Harrison | AppN | 15,450 | 79 | 16 | 102 | 60 |
| Henry | Rur | 27,816 | 86 | 17 | 62 | 83 |
| Highland | Арр | 43,026 | 480 | 96 | 223 | 14 |
| Hocking | Арр | 28,491 | 353 | 71 | 248 | 12 |
| Holmes | AppN | 43,909 | 71 | 14 | 32 | 87 |
| Huron | Rur | 58 <i>,</i> 469 | 457 | 91 | 156 | 35 |
| | | | | | | |

TABLE 1: INCIDENCE OF HEPATITIS C BY COUNTY AND REGION, 2014 - 2018

| Jackson | Арр | 32,596 | 509 | 102 | 312 | 6 |
|------------|------|---------|-------|-------|-----|----|
| Jefferson | AppN | 67,347 | 729 | 146 | 216 | 15 |
| Knox | Rur | 61,061 | 347 | 69 | 114 | 51 |
| Lake | Sub | 229,245 | 955 | 191 | 83 | 72 |
| Lawrence | Арр | 61,109 | 1,131 | 226 | 370 | 4 |
| Licking | Sub | 170,570 | 834 | 167 | 98 | 64 |
| Logan | Rur | 45,386 | 196 | 39 | 86 | 70 |
| Lorain | Met | 305,147 | 1,937 | 387 | 127 | 49 |
| Lucas | Met | 433,689 | 3,898 | 780 | 180 | 29 |
| Madison | Sub | 44,094 | 410 | 82 | 186 | 28 |
| Mahoning | AppN | 231,900 | 1,754 | 351 | 151 | 36 |
| Marion | Rur | 65,355 | 893 | 179 | 273 | 10 |
| Medina | Sub | 176,395 | 575 | 115 | 65 | 80 |
| Meigs | Арр | 23,257 | 365 | 73 | 314 | 5 |
| Mercer | Rur | 40,968 | 142 | 28 | 69 | 76 |
| Miami | Sub | 104,224 | 555 | 111 | 107 | 58 |
| Monroe | Арр | 14,409 | 75 | 15 | 104 | 59 |
| Montgomery | Met | 532,258 | 5,149 | 1,030 | 193 | 24 |
| Morgan | Арр | 14,777 | 118 | 24 | 160 | 32 |
| Morrow | Rur | 35,074 | 245 | 49 | 140 | 41 |
| Muskingum | AppN | 86,290 | 688 | 138 | 159 | 34 |
| Noble | Арр | 14,326 | 116 | 23 | 162 | 31 |
| Ottawa | Rur | 40,877 | 226 | 45 | 111 | 55 |
| Paulding | Rur | 18,976 | 61 | 12 | 64 | 82 |
| Perry | Арр | 35,985 | 343 | 69 | 191 | 25 |
| Pickaway | Sub | 56,998 | 598 | 120 | 210 | 16 |
| Pike | Арр | 28,217 | 737 | 147 | 522 | 1 |
| Portage | Sub | 162,275 | 807 | 161 | 99 | 63 |
| Preble | Rur | 41,329 | 305 | 61 | 148 | 38 |
| Putnam | Rur | 34,042 | 51 | 10 | 30 | 88 |
| Richland | Met | 121,707 | 1,139 | 228 | 187 | 27 |
| Ross | Арр | 77,170 | 1,088 | 218 | 282 | 9 |
| Sandusky | Rur | 59,679 | 266 | 53 | 89 | 69 |
| Scioto | Арр | 76,825 | 1,651 | 330 | 430 | 2 |
| Seneca | Rur | 55,610 | 367 | 73 | 132 | 47 |
| Shelby | Rur | 48,901 | 270 | 54 | 110 | 56 |
| Stark | Met | 375,165 | 1,495 | 299 | 80 | 74 |
| Summit | Met | 541,968 | 3,296 | 659 | 122 | 50 |
| Trumbull | AppN | 203,751 | 1,785 | 357 | 175 | 30 |
| Tuscarawas | AppN | 92,916 | 344 | 69 | 74 | 75 |
| Union | Sub | 54,277 | 373 | 75 | 137 | 43 |
| Van Wert | Rur | 28,562 | 160 | 32 | 112 | 53 |
| Vinton | Арр | 13,048 | 187 | 37 | 287 | 8 |
| | | | | | | |

| Warren | Rur | 224,469 | 1,222 | 244 | 109 | 57 |
|------------|-----|------------|--------|--------|--------|----|
| Washington | Арр | 61,112 | 409 | 82 | 134 | 45 |
| Wayne | Rur | 116,063 | 475 | 95 | 82 | 73 |
| Williams | Rur | 37,120 | 167 | 33 | 90 | 68 |
| Wood | Sub | 129,730 | 437 | 87 | 67 | 79 |
| Wyandot | Rur | 22,243 | 105 | 21 | 94 | 66 |
| | | | | | | |
| TOTAL | | 11,613,423 | 84,637 | 16,927 | 13,639 | |
| AVERAGE | | 131,971 | 962 | 192 | 155 | |
| MINIMUM | | 13,048 | 51 | 10 | 30 | |
| MAXIMUM | | 1,255,921 | 9,122 | 1,824 | 522 | |
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