eTable 8. Joinpoint results by ICD-10 opioid type for the black population, 1999-2015

# Black population by ICD0-10 type, 1999-2015

## Average APC

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Race | Outcome | Time period | Average APC (95% CI) | *P* value |
| Black | Heroin | 1999-2016 | 10.44 (8.57, 12.33) | < 0.001 |
| Black | Methadone | 1999-2016 | 6.89 (2.69, 11.27) | < .01 |
| Black | Natural | 1999-2016 | 9.20 (8.15, 10.26) | < 0.001 |
| Black | Other | 1999-2016 | -5.80 (-9.37, -2.08) | < .01 |
| Black | Synthetic | 1999-2016 | 20.52 (8.92, 33.35) | < 0.001 |

## Joinpoint Summary

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Race | Outcome | Time period | APC (95% CI) | *P* value |
| Black | Heroin | 1999-2010 | -0.67 (-2.88, 1.58) | = 0.53 |
| Black | Heroin | 2010-2016 | 34.12 (29.70, 38.68) | < 0.001 |
| Black | Methadone | 1999-2006 | 23.75 (18.36, 29.38) | < 0.001 |
| Black | Methadone | 2006-2009 | -10.32 (-28.43, 12.36) | = 0.31 |
| Black | Methadone | 2009-2016 | -0.44 (-3.46, 2.66) | = 0.75 |
| Black | Natural | 1999-2014 | 7.93 (7.33, 8.54) | < 0.001 |
| Black | Natural | 2014-2016 | 19.23 (10.05, 29.19) | < 0.001 |
| Black | Other | 1999-2014 | -8.48 (-9.59, -7.35) | < 0.001 |
| Black | Other | 2014-2016 | 16.96 (-17.65, 66.14) | = 0.35 |
| Black | Synthetic | 1999-2013 | 5.11 (-6.16, 17.73) | = 0.36 |
| Black | Synthetic | 2013-2016 | 128.21 (61.59, 222.30) | < 0.001 |

## Joinpoint Model Estimates

### Estimates

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Outcome | Year (95% CI) | Intercept (SE) | Intercept *P* Value | Slope (SE) | Slope *P* Value | Change in Slope (SE) | Slope Change *P* Value |
| Heroin | 1999 (Starting year) | 13.25 (20.83) | = 0.54 | -0.01 (0.01) | = 0.53 | NA | NA |
| Heroin | 2010 (2009, 2011) | -590.32 (31.21) | < 0.001 | 0.29 (0.02) | < 0.001 | 0.30 (0.02) | < 0.001 |
| Methadone | 1999 (Starting year) | -427.52 (40.02) | < 0.001 | 0.21 (0.02) | < 0.001 | NA | NA |
| Methadone | 2006 (2004, 2007) | 218.46 (203.16) | = 0.31 | -0.11 (0.10) | = 0.31 | -0.32 (0.10) | < .05 |
| Methadone | 2009 (2008, 2014) | 8.47 (27.76) | = 0.77 | -0.00 (0.01) | = 0.75 | 0.10 (0.10) | = 0.33 |
| Natural | 1999 (Starting year) | -153.09 (5.23) | < 0.001 | 0.08 (0.00) | < 0.001 | NA | NA |
| Natural | 2014 (2012, 2014) | -353.70 (74.81) | < 0.001 | 0.18 (0.04) | < 0.001 | 0.10 (0.04) | < .05 |
| Other | 1999 (Starting year) | 177.78 (11.35) | < 0.001 | -0.09 (0.01) | < 0.001 | NA | NA |
| Other | 2014 (2008, 2014) | -316.20 (327.41) | = 0.35 | 0.16 (0.16) | = 0.35 | 0.25 (0.16) | = 0.16 |
| Synthetic | 1999 (Starting year) | -101.07 (105.35) | = 0.35 | 0.05 (0.05) | = 0.36 | NA | NA |
| Synthetic | 2013 (2011, 2014) | -1661.69 (322.06) | < 0.001 | 0.83 (0.16) | < 0.001 | 0.78 (0.17) | < 0.001 |

### Summary

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Outcome | Obs. (N) | Parameters | Degrees of Freedom | Sum of squared errors | Mean squared error |
| Heroin | 18 | 4 | 14 | 46.05 | 3.29 |
| Methadone | 18 | 6 | 12 | 18.55 | 1.55 |
| Natural | 18 | 4 | 14 | 13.34 | 0.95 |
| Other | 18 | 4 | 14 | 51.63 | 3.69 |
| Synthetic | 18 | 4 | 14 | 606.26 | 43.30 |