Supplementary Table 1. Buprenorphine-waivered providers estimates and sources, 2003-2021

| **Year** | **Value** | **Detail** |
| --- | --- | --- |
| 2003 | 2,052 | Kissin et al. report 1,9861 as of August 2003 and Jones et al. report 1,800.2 The partial data source is used to predict the complete data for the source [Number by the end of 2004 minus number as of August 2003, divided by 16 months in between to get a constant growth rate within the timespan, then multiply by 4 and add to August 2003 data]. Then, the average of complete number and predicted number is calculated to be the final number for 2003. |
| 2004 | 3,256 | The average of the following was used: Jones et al. report 3,2192 and Stein et al. report 3,293.3 |
| 2005 | 5,484 | The average of the following was used: Jones et al. report 5,4192 and Stein et al. report 5,549.3 |
| 2006 | 8,556 | The average of the following was used: Fiellin et al. report 9,449,4 Arfken et al. report 8,818,5 Stein et al. report 8,068,3 and Jones et al. report 7,887.2 |
| 2007 | 10,637 | The average of the following was used: Jones et al. report 10,5032 and Stein et al. report 10,771.3 |
| 2008 | 14,365 | The average of the following was used: Arfken et al. report 15,662,5 Jones et al. report 13,538,2 Stein et al. report 13,896.3 |
| 2009 | 15,818 | The average of the following was used: Jones et al. report 15,6082 and Stein et al. report 17,785.3 |
| 2010 | 18,024 | The average of the following was used: Jones et al. report 15,6082 and Stein et al. report 18,262.3 |
| 2011 | 20,148 | The average of the following was used: Jones et al. report 19,8862 and Stein et al. report 20,410.3 |
| 2012 | 22,198 | Jones et al.2 |
| 2013 | 23,629 | Knudsen et al.6 |
| 2014 | 26,441 | 2014 Buprenorphine summit report of proceedings states 25,738, which is partial-year data as of September 2014.7 The two nearest time points, end of 2013 and September 2014, are selected to calculate the constant growth rate for providers in total and at different limits per month in 2014, by using the difference between two time points divided by the 9 months in between. Then, assume the growth rate till the end of 2014 is constant to estimate the complete number by multiplying the constant growth rate by 12 months and adding to the number by the end of 2013. |
| 2015 | 30,987 | The Department of Health and Human Services reported 32,213 practitioners as of March 2016.8 The overall 2015 number is predicted by using numbers by the end of 2014 and March 2016. A constant growth rate is calculated to predict. For providers at different limits, the average fractions of 2013 and 2014 are calculated as the fraction of 2015 to predict as 2013-2015 only have providers waivered at 30 and 100 limits. |
| 2016 | 35,531 | The Department of Health and Human Services reported 32,213 practitioners as of March 2016.8 Partial numbers were used to predict the complete data. The predicted number by the end of 2015 and March 2016 are selected to calculate the constant growth rate per month, by using the difference between these two time points divided by the 3 months in between. Then, we assume the growth rate until the end of the year is constant to estimate the complete number by the end of 2016. There is only this predicted total number from the source for 2016, so the method using constant rate could not be used to predict the number at each limit level. Since the 275-limit started in August 2016, 2016 would be the first year having providers waivered at 275-limit. Therefore, an average fraction calculated using proportions of limit at each level from 2017 and 2018 is used to predict limit numbers for 2016. |
| 2017 | 42,037 | Abraham et al.9 |
| 2018 | 55,500 | Duff.10 |
| 2019 | 82,620 | Duff and Carter report 66,800 as of June 1, 2019.11 Partial numbers are used to predict the complete data for the given year. The end of 2018 and June 1, 2019 are selected to calculate the constant growth rate per month, by using the difference between two time points divided by the 5 months in between. Then, assume the growth rate till the end of the year is constant to estimate the complete number by the end of 2019. |
| 2020 | 94,223 | Substance Abuse and Mental Health Services Administration Practitioner and Program Data website as of Dec 30, 2020.12 Note this is updated daily, so prior dates’ numbers cannot be viewed. |
| 2021 | 114,376 | Substance Abuse and Mental Health Services Administration Practitioner and Program Data website as of Jan 3, 2022.12 Note this is updated daily, so prior dates’ numbers cannot be viewed. |

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