

Application of mortality multiplier to POU estimation over time

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Sources

- Standard Tables and National Reports from The Netherlands reported to the EMCDDA
- Annual reports (in Dutch: “Jaarberichten”) from the Netherlands National Drug Monitor (NDM)

Multiplier

- Fatal overdose rate opioids = 0.33%
- Multiplier = $100/0.33 = 303$
 - Source: Cruts, G., Buster, M., Vicente, J., Deerenberg, I., & Van Laar, M. (2008). Estimating the total mortality among problem drug users. *Substance Use & Misuse*, 43(5), 733–747.

Opioids deaths

Year	Opioids deaths
1996	81
1997	71
1998	71
1999	63
2000	68
2001	75
2002	37
2003	53
2004	52
2005	60
2006	44
2007	34
2008	52
2009	52
2010	37
2011	33
2012	28
2013	44
2014	40
2015	64
2016	74

The opioids deaths are the number of registered deaths directly related to opioids (acute deaths, poisonings, overdoses) derived from the Causes of death statistics held by Statistics Netherlands (CBS) and reported to the EMCDDA by the Netherlands National Focal Point located at the Trimbos Institute, Netherlands Institute of Mental Health and Addiction. Sources for the figures: (1) Van Laar, M. W., Cruts, A. A. N., Verdurmen, J. E. E., Van Ooyen-Houben, M. M. J., Meijer, R. F., Croes, E. A., ... De Jonge, L. K. (2005). Nationale Drug Monitor: Jaarbericht 2005. Utrecht: Trimbos-instituut. (2)https://fonte.emcdda.europa.eu/fonte/history/view/view.do?reportId=ST6_2017_NL_01, (3)https://fonte.emcdda.europa.eu/fonte/history/view/view.do?reportId=ST6_2016_NL_01. (4) Van Laar, M. W., Van Gestel, B., & (Red.). (2018). Nationale Drug Monitor: Jaarbericht 2018. Utrecht/Den Haag: Trimbos-instituut/WODC.

Results of the multiplier

Year	Opioids deaths	Overdose mortality	Multiplier	Predicted POU
1996	81	0.33	303	24545
1997	71	0.33	303	21515
1998	71	0.33	303	21515
1999	63	0.33	303	19091
2000	68	0.33	303	20606
2001	75	0.33	303	22727
2002	37	0.33	303	11212
2003	53	0.33	303	16061
2004	52	0.33	303	15758
2005	60	0.33	303	18182
2006	44	0.33	303	13333
2007	34	0.33	303	10303
2008	52	0.33	303	15758
2009	52	0.33	303	15758
2010	37	0.33	303	11212
2011	33	0.33	303	10000
2012	28	0.33	303	8485
2013	44	0.33	303	13333
2014	40	0.33	303	12121
2015	64	0.33	303	19394
2016	74	0.33	303	22424

Problem opioids users in the Netherlands as predicted by the fatal-overdose multiplier and as estimated by other methods like the treatment multiplier. Registration years 1996 up to including 2016

