

## Highlights of PubMed Evidence Review

"Random drug and alcohol testing for preventing injury in workers." Charl Els, Tanya D Jackson, Mathew T Milen, Diane Kuny, Graeme Wyatt, Daniel Sowa, Reidar Hagtvedt, Danika Deibert, Sebastian Straube  
PMID: 33368213 PMCID: PMC8130990 (available on 2021-12-27) DOI:

10.1002/14651858.CD012921.pub2

*Meta analysis done in 2021 of studies of testing and workplace injuries. The only (weak) positive correlation was for alcohol testing (which is not found on the standard pre-employment "substance abuse screening").* <https://pubmed.ncbi.nlm.nih.gov/33368213/>

"Testing for cannabis in the work-place: a review of the evidence". Scott Macdonald, Wayne Hall, Paul Roman, Tim Stockwell, Michelle Coghlan, Sverre Nesvaag. *Addiction* 2010 Mar;105(3):408-16  
*A 20-year retrospective shows urine testing does not have a meaningful impact on job injury/accident rates. Data analysis also shows no evidence that cannabis users experienced higher rates of work-related injuries. No association between pre-employment drug testing and accident reduction.* PubMed  
<https://pubmed.ncbi.nlm.nih.gov/20402984/> . doi: 10.1111/j.1360-0443.2009.02808.x.

"How effective is drug testing as a workplace safety strategy? A systematic review of the evidence." Ken Pidd, Ann M. Roche.

<https://www.sciencedirect.com/science/article/abs/pii/S0001457514001547?via%3Dihub>

*23 studies were reviewed and assessed, six of which reported on the effectiveness of testing in reducing employee drug use and 17 which reported on occupational accident or injury rates. No studies involved randomised control trials. Only one study was assessed as demonstrating strong methodological rigour. That study found random alcohol testing reduced fatal accidents in the transport industry. The majority of studies reviewed contained methodological weaknesses including; inappropriate study design, limited sample representativeness, the use of ecological data to evaluate individual behaviour change and failure to adequately control for potentially confounding variables. This latter finding is consistent with previous reviews and indicates the evidence base for the effectiveness of testing in improving workplace safety is at best tenuous.*

"Pre-employment urine drug testing of hospital employees: future questions and review of current literature." Levine MR, Rennie WP. *Occupational and Environmental Medicine* 2004;61:318-324. *Study found no evidence that pre-employment hospital employee drug testing positively impacts patient safety or saves hospitals money.*

"Field Sobriety Tests and THC Levels Unreliable Indicators of Marijuana Intoxication," National Institute of Justice, April 5, 2021, [nij.ojp.gov: https://nij.ojp.gov/topics/articles/field-sobriety-tests-and-thc-levels-unreliable-indicators-marijuana-intoxication](https://nij.ojp.gov/topics/articles/field-sobriety-tests-and-thc-levels-unreliable-indicators-marijuana-intoxication) *NIJ study examined how cannabis dose and administration method (eaten or vaped) affect THC levels in the body and how THC levels correlate with performance on impairment tests. RTI concluded that THC levels in biofluids were not reliable indicators of test performance or marijuana intoxication. (This affirms the legal soundness of Oregon's decision to avoid a "per se" law that sets a level of THC in biofluids as a proxy for impairment consistent with this US DOJ research.)*

### Other Sources Used

"Meta-analysis in medical research". Hippokratia. 2010 Dec;14(Suppl 1):29-37. PMID: 21487488; PMCID: PMC3049418. *Meta-analysis is a quantitative, formal, epidemiological study design used to systematically assess previous research studies to derive conclusions about that body of research. The article reviews this structured method for evidence reviews.*

“Stigma in health facilities: why it matters and how we can change it”. Nyblade et al. BMC Medicine (2019) 17:25. <https://doi.org/10.1186/s12916-019-1256-2>. *Stigma in health facilities undermines diagnosis, treatment, and successful health outcomes. Addressing stigma is fundamental to delivering quality healthcare and achieving optimal health. Stigma does not only affect those who are living with stigmatized health conditions. Its ramifications reverberate outward through communities and inwards through the health facility into the policies and procedures that guide care, and on to the staff who are charged with providing care. It matters because reducing stigma has the potential to improve the health workplace environment, the quality of care provided by staff, the clinical outcomes of individuals living with stigmatized health conditions, and the social risks taken when accessing healthcare for particular conditions. Recommendations are apropos to current stigmatized view of cannabis by healthcare systems.*

(links verified 9/19/22)