How well does self-report and biological measures of illicit drug use agree?

A systematic review and meta-analysis

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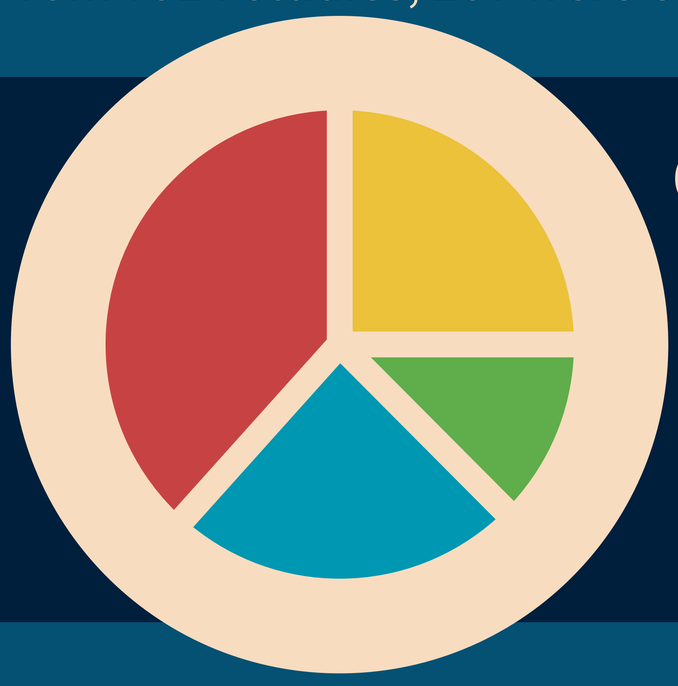
METHODS

- Examined all major illicit drug classes, biological indicators, populations and settings
- Searched peer-reviewed & grey literature to March 2022
- Random-effect regression used for pooled estimates
- From 7924 studies, 207 were eligible

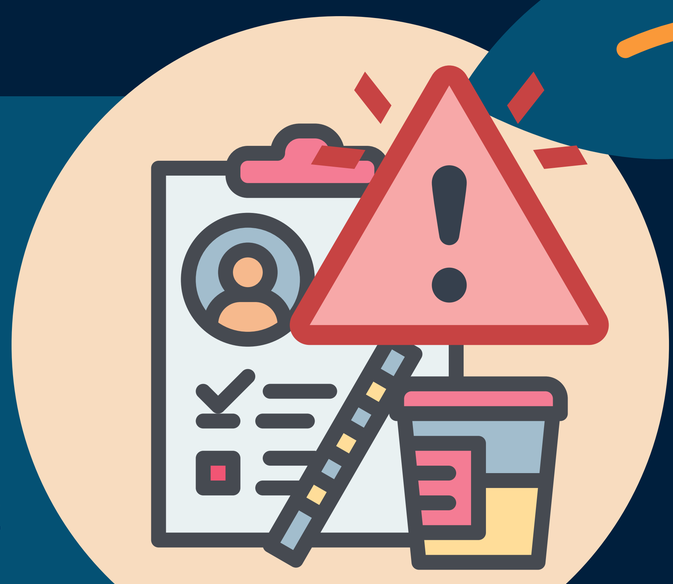


COMMON STUDY CHARACTERISTICS

- **Region:** North America (59%), Western Europe (20%)
- **Biologics:** urine (73%), hair (22%), saliva (12%)
- **Drug type:** cocaine (65%), cannabis (56%), opioids (34%), methamphetamine (33%)

HIGH BIAS RISK FROM BIOLOGICS

- 51% of studies had high risk of bias for biological assessments; most of these used drug screening tests
- Low bias risk across all other domains
- Used Quality Assessment of Diagnostic Accuracy Studies-2



AGREEMENT VARIED BASED ON...

- The timeframe of self-report
- The % of the cohort with drug dependence/high drug use
- Whether there were consequences for reporting use
- Whether people were informed they would be tested

IN CONCLUSION, THIS REVIEW FOUND THAT...

AGREEMENT BETWEEN SELF-REPORT AND BIOLOGICAL MEASURES OF DRUG USE IS HIGH

THERE WAS SUBSTANTIAL BETWEEN-STUDY VARIABILITY IN SUMMARY ESTIMATES OF SENSITIVITY, SPECIFICITY AND PREDICTIVE VALUES. FOR MORE DETAILS, SEE OUR PAPER (QR CODE AT TOP).

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