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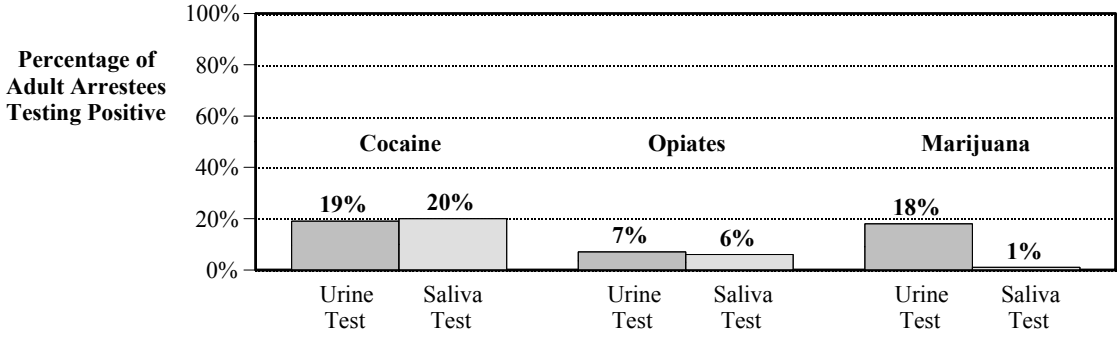
Saliva Testing May Be as Accurate as Urinalysis for Measuring Arrestees' Cocaine and Opiate Use--Not Marijuana

Saliva testing may be as accurate as urinalysis for detecting recent cocaine and opiate use, according to a CESAR study of adult arrestees interviewed as part of Maryland's Substance Abuse Need for Treatment among Arrestees (SANTA) project. Between April and July 2000 urine and saliva specimens were collected from 114 arrestees in 3 Maryland counties. Both the urine and saliva tests yielded similar estimates of cocaine (19% vs. 20%) and opiate (7% vs. 6%) use. However, only 1% of arrestees tested positive by saliva for marijuana use, compared to 18% by urinalysis ($p<.01$), indicating that saliva testing may not be an accurate tool for detecting recent marijuana use. While saliva testing is nearly twice as expensive as urinalysis (approximately $20 vs. $10 per specimen), it offers many advantages. It is easier to collect and store, is less invasive than urine collection, and is less vulnerable to adulteration. The authors recommend that "the current study be replicated beyond arrestees to assess the broader possibilities for saliva testing" (p. 293).

Percentage of Adult Arrestees Testing Positive for Cocaine, Opiates, or Marijuana, by Type of Test
(N=114)



NOTES: The detection time for urinalysis is 72 hours and for saliva testing is 12-24 hours. For cocaine, the saliva test was 100% sensitive and 99% specific. For opiates, the saliva test was 88% sensitive and 100% specific. For marijuana the saliva test was 5% sensitive and 100% specific.

SOURCE: Yacoubian G.S., Jr., Wish E.D., Perez D.M. "A Comparison of Saliva Testing to Urinalysis in an Arrestee Population," *Journal of Psychoactive Drugs* 33(3):289-294, 2001. For more information, contact Dr. Eric Wish at ewish@cesar.umd.edu.

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