



Testing for Synthetic Opiates: MRO Review: Rx vs. Illegal use

DTAB Meeting Sept 2011
J. Michael Walsh, Ph.D., The Walsh Group

SAMHSA/RTI/Walsh Group MRO Project

- + Principle Objective: To evaluate the relationship between laboratory reported drug test results and MRO verified results reported to employers in federally regulated (FR) and non-regulated (NR) workplaces
- + Began in 2003
- + Data purchased annually from large MRO firm over 7 year period [2003-2009]
- + Data year represents 12 month - calendar year. Data generally received in April
- + Over 7 years looked at detailed results of more than 7 million urine specimens, approximately 0.75 million oral fluid specimens and approximately 100,00 hair tests
- + Began looking at the synthetic opiates being tested in NR workplace in 2006
- + Today will share analysis of urine tests done on "Unregulated" specimens for synthetic opiates from 2006 thru 2009. During this 4-yr period roughly 1.3M specimens were tested for the Hydrocodones, and 0.8M were tested for the Oxycodones

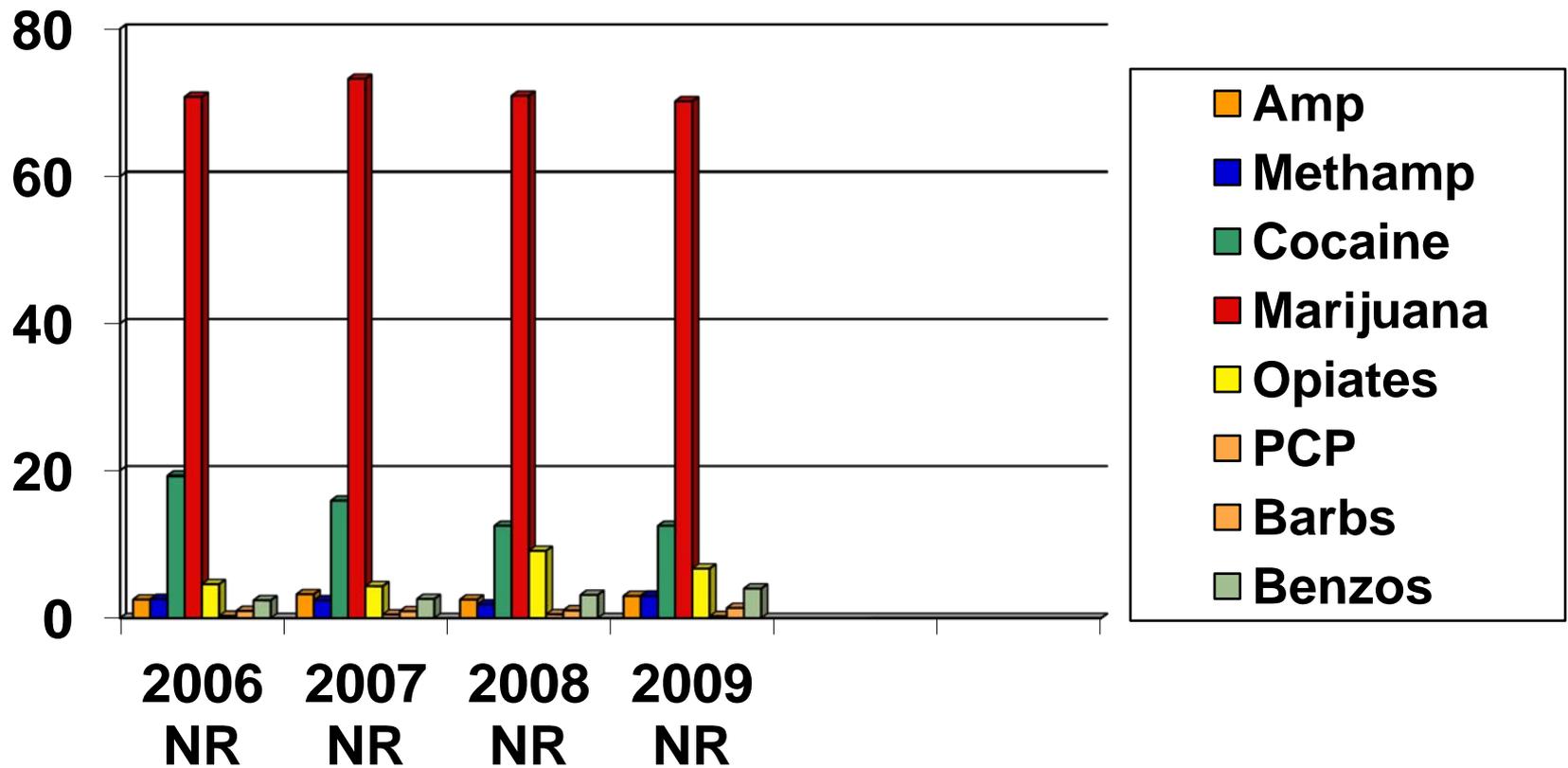
Methods

- + Virtually all specimens (99%) were analyzed by SAMHSA certified labs
- + All blind QC samples were excluded from the analysis
- + Each record contains 254 data elements including:
 - + Donor demographics
 - + Employer information
 - + Collection site information
 - + Lab results
 - + MRO determinations
- + HHS human subject protection criteria were followed
- + Specimens represent $\approx 5,000$ private sector companies across U.S.

Summary of NR Urine Testing Data 2006-2009

		Records	Lab +	MRO Verified +
Non- Regulated	2006	1,062,367	4.19%	79.95%
	2007	1,037,473	4.11%	72.80%
	2008	826,600	4.04%	63.45%
	2009	618,552	4.23 %	56.83%

% Total MRO Verified +'s by Drug Class



Synthetic Opiate Test Result Breakdown 2006 - 2009

Oxycodone	# Specimens Tested	% specimens testing +	Total # Lab +	MRO Confirmed + *	MRO reversed	% MRO Reversed
2006 [18%]	195,883	0.30	584	204	379	64.9
2007 [20%]	211,211	0.35	729	191	535	73.4
2008 [25%]	208,035	0.45	927	261	666	71.8
2009 [33%]	203,702	0.47	965	249	716	74.2
Oxymorphone						
2006 [18%]	195,883	0.33	645	222	422	65.4
2007 [20%]	211,211	0.46	978	317	659	67.4
2008 [25%]	208,035	0.58	1197	400	796	66.5
2009 [33%]	203,702	0.65	1317	392	925	70.2
Hydrocodone						
2006 [28%]	299,578	0.67	2008	382	1626	85.00
2007 [32%]	334,076	0.70	2335	337	1995	85.44
2008 [43%]	357,667	0.71	2567	327	2240	87.26
2009 [46%]	285,758	0.93	2669	311	2358	88.34
Hydromorphone						
2006 [28%]	299,578	0.36	1087	231	856	78.75
2007 [32%]	334,076	0.42	1387	232	1152	83.06
2008 [43%]	357,667	0.42	1505	202	1303	86.57
2009 [46%]	285,758	0.55	1574	177	1397	88.75

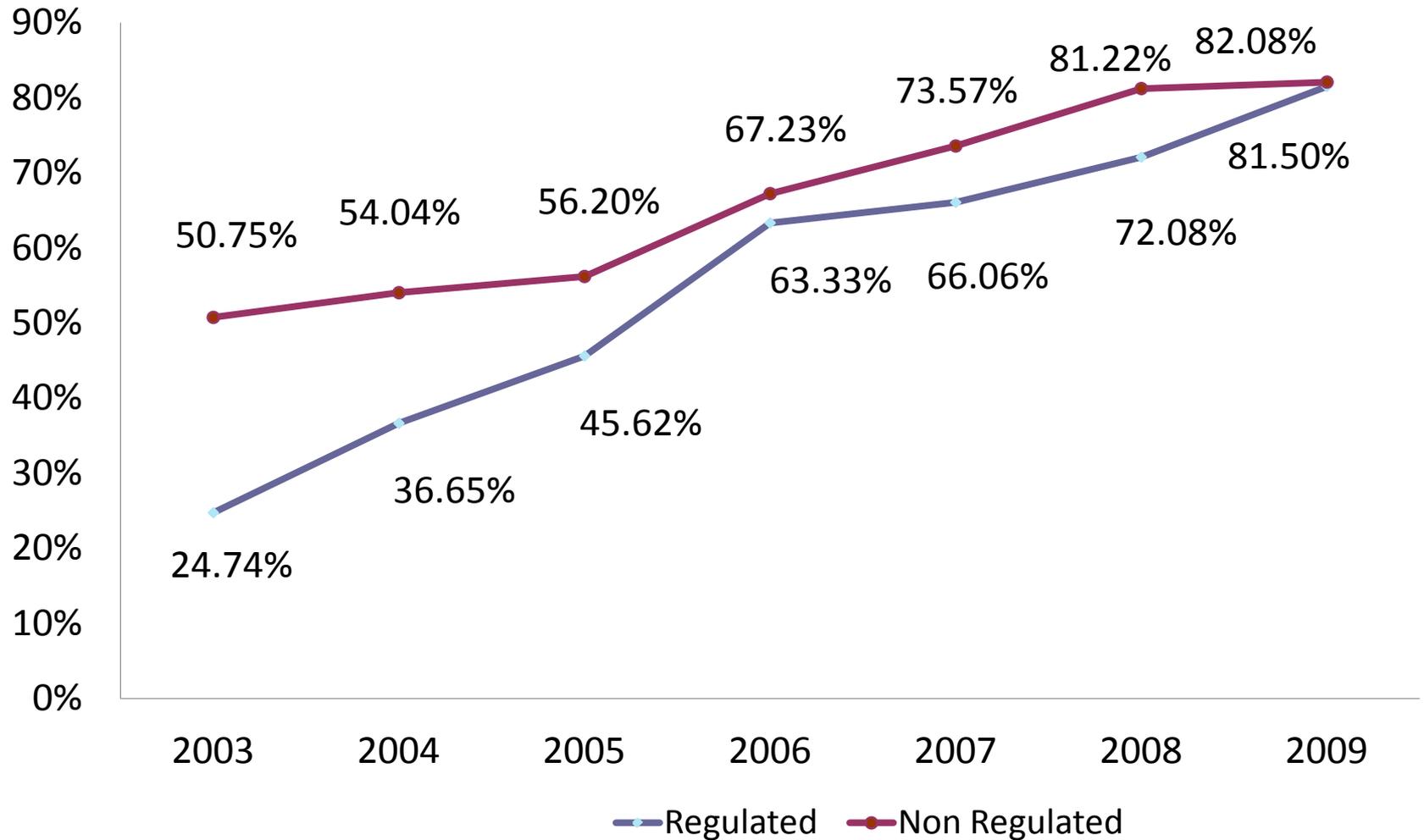
*MRO confirmed positives include both reviewed and non-contact positive results

Details of Synthetic Opiate Analysis 2006 - 2009

Oxycodones	Specimens Tested	Laboratory +	Lab + Oxycodone	Lab + Oxymorphone	Lab + for Both
2006 [18%]	195,883	774	129	190	455 [58.8%]
2007 [20%]	211,211	1,043	63	312	666 [63.9%]
2008 [25%]	208,035	1,288	91	361	836 [64.9%]
2009 [33%]	203,702	1,393	76	428	889 [63.8%]
?	?	?	?	?	?
Hydrocodones	Specimens Tested	Laboratory +	Lab + Hydrocodone	Lab+Hydromorphone	Lab + for Both
?	?	?	?	?	?
2006 [28%]	299,578	2,138	1,051	129	958 [44.8%]
2007 [32%]	334,076	2,478	1,244	143	1,091 [44.0%]
2008 [43%]	357,667	2,749	1,244	178	1,327 [48.3%]
2009 [46%]	285,758	2,873	1,299	173	1,401 [48.8%]

?

MRO Reversal Rates for Amphetamine Over 7 Year Period



Summary

- Overall volume of workplace drug tests declined during 4 yr. period [2006 to 2009] and lab positive rates remained consistent at approximately 4%
- MRO reversal rates increased significantly from 2006 to 2009 in both FR and NR testing
 - In FR tests the majority of MRO reversals appeared to be due to prescription use of opiates and amphetamine
 - In NR tests increased MRO reversals were associated with opioids, amphetamine, barbiturates, and benzodiazepines
 - MRO reversals for amphetamine have increased every year since 2003 from 25% to 82% in FR and from 50% to 82% in NR testing

Summary II

NR Expanded Opiate Panels

- + Synthetic opiates (Hydrocodone, Hydromorphone, Oxycodone and Oxymorphone) account for roughly half of all NR opioid laboratory positive test results.
- + MRO reviews identified higher illegal use rates for Oxycodone/Oxymorphone (25 -35 %) than for Hydrocodone/Hydromorphone (\approx 12%).
- + MRO reversal rates for synthetic opiates have also risen over the 2006 – 2009 period, with reversals for Oxycodones increasing from \approx 65 to 74%, and Hydrocodones from \approx 80 to 88%.

Any Questions??

