

“Catching System Cheaters” in Drug Court Programs

Implementing Automated Drug Testing Strategies
for Better Outcomes

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Presentation Overview

- ▶ Our Drug Court Program - An Overview
- ▶ Challenges experienced within the Program
- ▶ Limitations of Dip Test for Drug Screening
- ▶ Considerations for Drug Testing Automation
- ▶ The “Fear” of Automated Drug Testing
- ▶ Program Improvements since using Automated Drug Testing
- ▶ Summary / Conclusions

Our Drug Court Program - An Overview

- ▶ Drug Court Program Established in 2016
 - ▶ Located in Knox County: ~60,000 residents
 - ▶ Low Income: ~\$20K/year
 - ▶ Select for offenders most at risk to re-offence
 - ▶ Usually have 60 days suspended over their head
 - ▶ Judge was tired of reading about all of the overdoses in the county



Our Drug Court Program - An Overview

▶ Year 2016

- ▶ 6 participants
- ▶ 5 probation officers
- ▶ Drug Testing Method: Manual Dip Test
- ▶ Budget - \$5,000 for training, testing
- ▶ Recidivism rate - 40%

▶ Today, 2019

- ▶ 24 participants
- ▶ 6 Probation officers
- ▶ Drug Testing Method: Automated
- ▶ \$25,000 per year, grant funded mostly
- ▶ Recidivism rate - almost 0%



Goals of Probation

1

Rehabilitating the offender

- through an individualized program so that he or she may make a seamless transition back into the community

2

Protecting the community from habitual criminal offenders

- by supervising offenders and enforcing conditions of probation

3

Providing accurate and relevant information

- to the court, law enforcement officers and the judge
- so that the justice system remains effective.

Requirements of an Effective Drug Court Program

Drug Court Program is "treatment" focused

Treatment focus means you're trying to change the behavior and address the problem

Moral support and relationship building

Requires that Social worker, alcohol counselor, probation officer to develop relationships with each participant
Encourage participants to keep moving forward in their recovery

Accurate data and data tracking


AA meetings
Service contribution hours
Other
Drug test results: Timely, Accurate, Valid

Accurate Data and Data Tracking

“Impossible task, it was all manual”



- ▶ Ledger Book
 - ▶ Participant name
 - ▶ Chain of Custody
 - ▶ Test results: entered as positive or negative
 - ▶ Hand tabulated & created drug testing reports
- ▶ Manual process did not lend itself to...
 - ▶ Participant trend reports
 - ▶ Easy Access to drug test results (not computer or internet based)
- ▶ Manual Dip Test method
 - ▶ Subjective interpretation of results: repeats
 - ▶ Limited other test options
 - ▶ No specimen validity tests



Dip Test Identified the Problem, but Didn't Address It

- ▶ If you're reducing your drug usage, how can I find out?
- ▶ What other drugs might you be taking that are not offered in the panel?
- ▶ What if I only want to test for a few drugs in the panel, not the entire panel?
- ▶ The dip test can be subjective, is it really positive or negative?
- ▶ Has the specimen been tampered with?
- ▶ What drugs are trending in my region?

From Dip to Automated:

Thermo Scientific™
Indiko™ Plus Analyzer



Question	Feature	Dip Test	Automated Test
Positive or negative? False Positives?	Qualitative Testing	Subjective: may require repeat testing	Objective: minimal repeat testing
Reducing drug usage? Have you improved?	Semi-quantitative testing	No - Not available	Yes - compare with previous test results
Can I test for specific drugs?	Flexible testing menu	No - Limited to panels	Yes - individualized and randomized
Has the specimen been tampered with?	Specimen validity test e.g. creatinine	Not available???? Not easily integrated	Yes - select from a menu of 4 tests
What is the true result, when creatinine is factored?	Normalized reports: e.g. THC + creatinine	No-Not available	Yes - calculated automatically
How soon to test result, so I may share with participant?	Time to Result	~3? Minutes per panel (1, 6, 13)	~15 minutes, first test, ~1 minute for every test thereafter
What drugs are trending in this region?	Trend Reports: compare participant positives	No - all manual	Yes - calculated automatically

Automation - is it Right for Me?



- ▶ I am not a lab rat!!
 - ▶ Myth - you have to be a chemistry grad to run the analyzer
- ▶ Busting the Myth
 - ▶ On-site training
 - ▶ Vendor performs validation upon install
 - ▶ Support team is dedicated to toxicology only
 - ▶ 24/7 phone support
- ▶ Its easier than you think (fear)
 - ▶ "Fear" is false evidence appearing real

It's an Investment You Get What you Pay For



- ▶ **COST**
 - ▶ Initially, it will cost more than dip tests
- ▶ **TIME**
 - ▶ Getting set-up
 - ▶ Garnering internal support and funding
 - ▶ Learning the new method
 - ▶ Overcoming the “fear”
 - ▶ Changing the way we think
 - ▶ Using the data more effectively
 - ▶ Normalized reports (e.g. creatinine)
 - ▶ Drug trend reports
- ▶ **Quality**
 - ▶ Better data = Better Participant Outcomes

Costs for Automation: Is it Right for Me?

- ▶ It costs how much???
 - ▶ Price is based on testing volume
 - ▶ The more you do, the more cost-effective
 - ▶ Reagent rental option (no need to purchase analyzer, just cost/test)
- ▶ Drug Court Program Savings
 - ▶ Test more participants, with less
 - ▶ Less recidivism, lower drug court costs over all
 - ▶ More money from grant programs - Data supports grant submission
 - ▶ Pull in testing from other agencies
 - ▶ Cost Benefit: Greater financial impact to individuals and community



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Direct Drug Testing Costs vs Program Cost Savings

- ▶ Drug Courts save as much as \$27 for every \$1 invested with Reduced...
 - ▶ Re-arrests
 - ▶ Law enforcement contacts
 - ▶ Court hearings
 - ▶ Use of jail or prison beds
 - ▶ Foster care placement
 - ▶ Health care utilization

	Funding	Cost	Success
Traditional Criminal Justice System	\$60 billion ⁹ <i>National expenditures</i>	\$22,650 ¹⁰ <i>Average annual cost per prisoner</i>	30% <i>Success rate of drug abusers released from prison</i>
Drug Courts	\$306.8 million¹¹ <i>Federal and State expenditures</i>	\$6,985¹² <i>Average annual cost per Drug Court participant</i>	75% <i>Success rate of Drug Court graduates</i>

Time Required

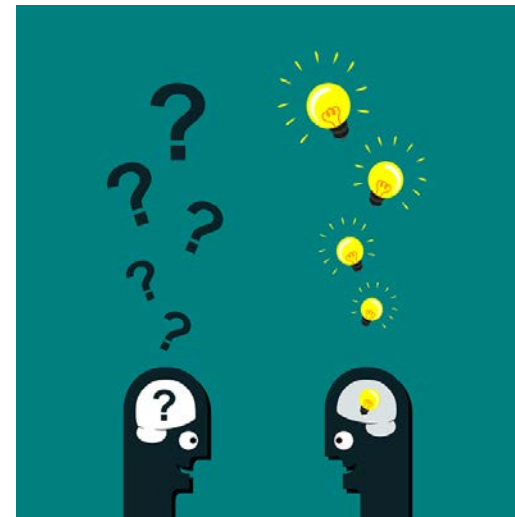
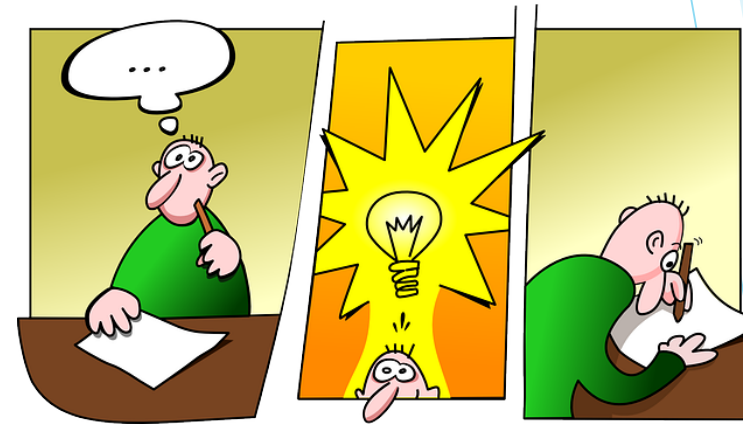
Automation: Is it right for me?

- ▶ I don't have the time to implement something new!
- ▶ Better to invest time to save time and resources in the long run...
- ▶ Consistent, methodical, legally defensible



Making the Transition to Automation

- ▶ Changing the way we think
 - ▶ Its not an immediate result - dip and go
 - ▶ Quality over instant gratification
 - ▶ I'm getting all of this useful data out of it - takes a little time to understand and use
- ▶ Using the drug testing information
 - ▶ Normalized report (e.g. creatinine)
 - ▶ Participant drug trends over time
 - ▶ Assessing drugs trending in our community



Creatinine VS THC

Example of a “Normalized Report”

- ▶ Creatinine - indicates how accurate the test results are relative to how hydrated a participant is
 - ▶ hydrated (took lots of fluids before their test)
 - ▶ Dehydrated (more dehydrated than normal)
 - ▶ Common use is with THC, which can stay in the fat cells

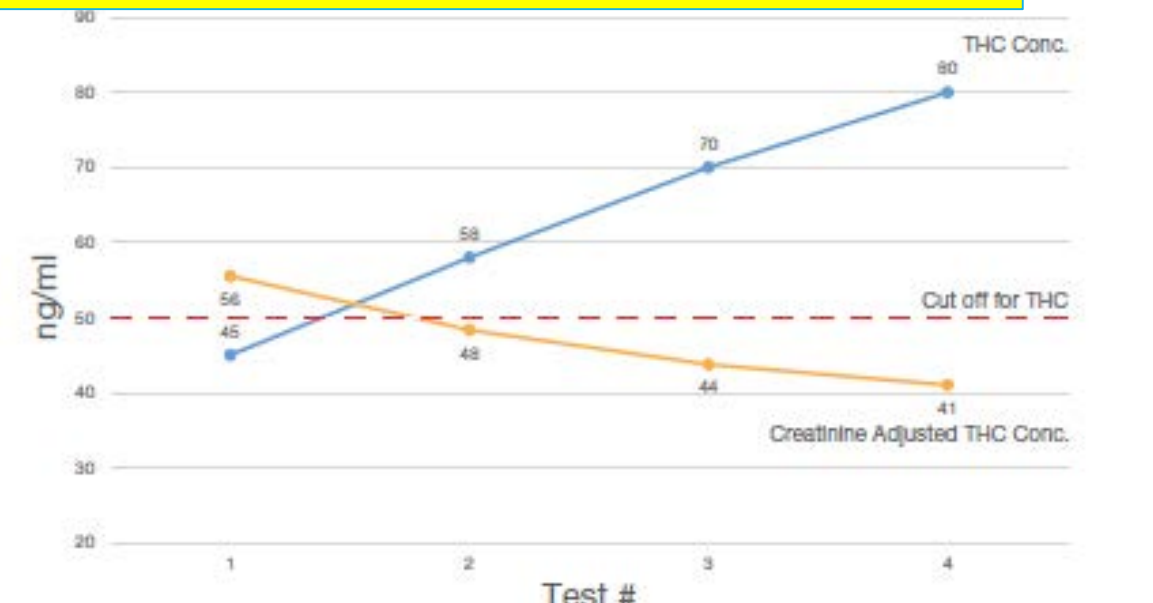
Creatinine VS THC

Example of a "Normalized Report"

Graph 1 - Red line is 50 ng/mL cutoff

- ▶ THC Concentrations: increasing over time (blue line)
- ▶ Normalized: THC (yellow line) below cutoff (red line)

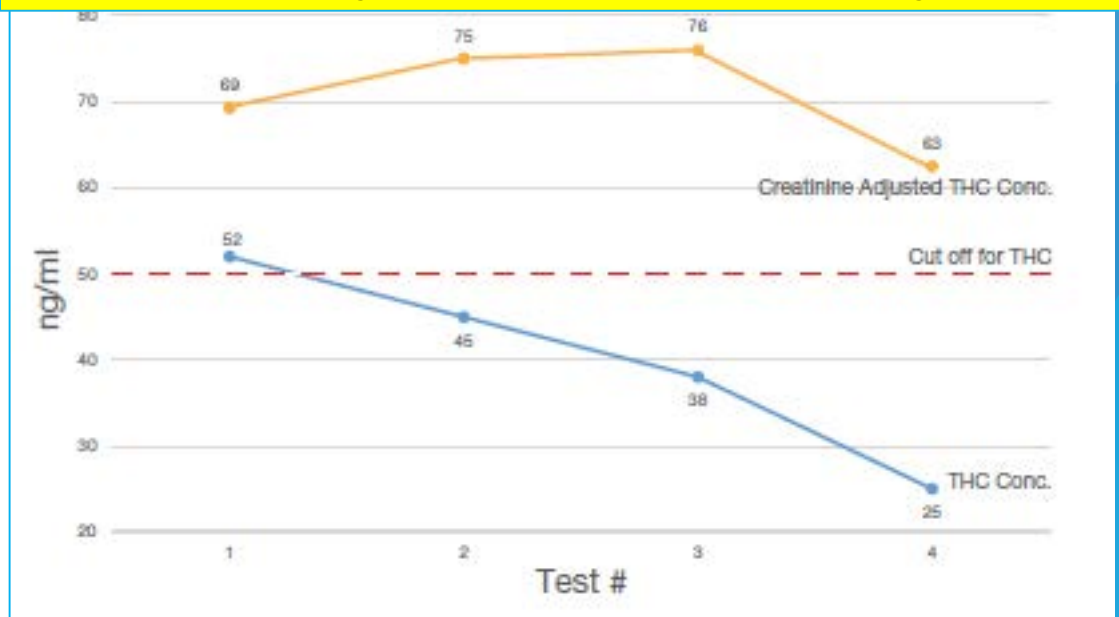
Drug Test: indicated they had used the drug
Normalized drug test: no new use of the drug



Graph 2 - Red line is 50 ng/mL cutoff

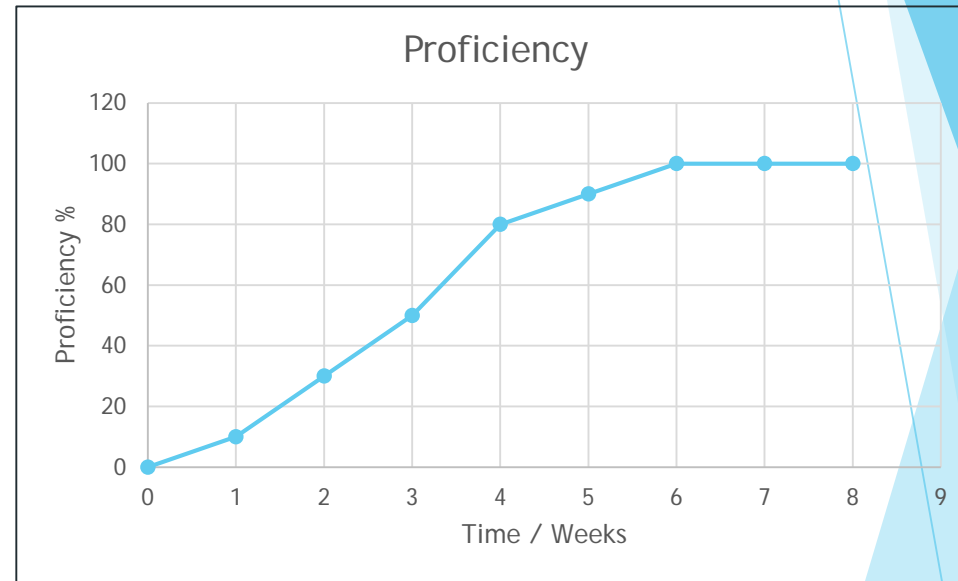
- ▶ THC Concentrations: decreasing over time (blue line)
- ▶ Normalized: THC (yellow line) above cutoff (red line)

Drug Test: indicated they had no new use of the drug
Normalized drug test: new use of the drug



Making the Transition to Automation

- ▶ The learning curve
 - ▶ Learning consistency
 - ▶ Patience - you'll get comfortable with it
 - ▶ Some officers take to it better than others
 - ▶ You need to focus on the benefits to keep moving forward
- ▶ "How did I ever live without it?"





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Growing pains with implementation

Issue: Changing the way we think

Old vs New Ways of Thinking

Two groups of officers

Old Ways of Thinking - "I know this person is positive; so I will wait for the drug test report so I can file" and send them back to jail

Dip Test: Yes/No answers

New Ways of Thinking - Probation Officers that are also licensed as Social Workers

Use your results to your advantage!

If sobriety is self initiated, it is far more successful than if it is mandated



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Growing pains with implementation

Issue: as we brought automated system on online, started testing more people

20 dip tests/day vs 40 urine collections a day for automation

In the past, just let people come in whenever

Issue: Where do you store everything that comes with the analyzer?

Multiple reagents, calibrators and controls that need to be refrigerated

Resolution:

Purchase refrigerator

Insights with Automation

▶ Drug Trends

- ▶ What drugs are we seeing with a participant?
- ▶ What is the population using?
- ▶ Are they opioid-pills, heroin, fentanyl, kratom?

▶ How did we live without this? If we still used dip test:

- ▶ Efficacy of providing treatment would decrease
- ▶ Accountability would decrease
- ▶ Positive conversations with people to put belief back in them, would be eliminated

Test	Result
Amphetamine	Negative
Barbiturate	Negative
Benzodiazepine	Negative
Buprenorphine	Positive
Cannabinoid	Negative
Cocaine	Negative
Ethyl Alcohol	Negative
Methadone	Negative
Opiate	Negative
Oxycodone	Negative
Creatinine	Normal
Kratom	Negative

Time + Money = Quality It's Worth the Investment



Joel Carter with the Thermo Scientific™ Indiko™ Plus Analyzer

- ▶ Reduced recidivism
 - ▶ (40% to ~0%)
- ▶ Enhanced grant opportunities
- ▶ Tested more with less
- ▶ What's next in our program? █

Questions?

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