

Criminal Justice Innovation Lab Webinar

Pretrial Risk Assessment Tools 101

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SCHOOL OF GOVERNMENT

Criminal Justice Innovation Lab



Presentation Overview

- Introduction
- Key terms and concepts
- Approaches and tools
- Evidence
- Considerations



Introduction

Poll #1

- How familiar are you with pretrial risk assessment tools?
 - Not at all familiar: *“I don’t know anything about them.”*
 - Slightly familiar: *“I’ve heard of them.”*
 - Somewhat familiar: *“I’ve read about them, but haven’t used them.”*
 - Very familiar: *“We use them in my court.”*

Pretrial Risk Assessment Tools

■ Purpose

- Increase structure, consistency, transparency, and accuracy in evaluating the likelihood of pretrial outcomes, including:

- Failure to appear
- Danger (or threat) to public safety

through consideration of set number items empirically-related related to those outcomes

- Provide information to help differentiate between people who pose lesser and greater risk

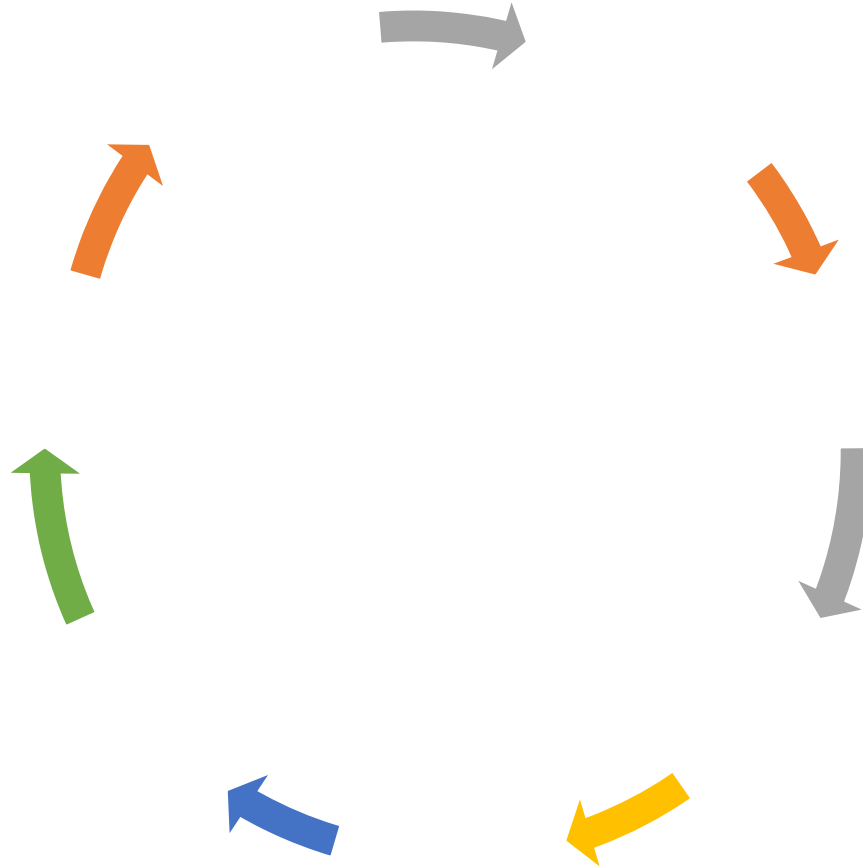


Pretrial Risk Assessment Tools

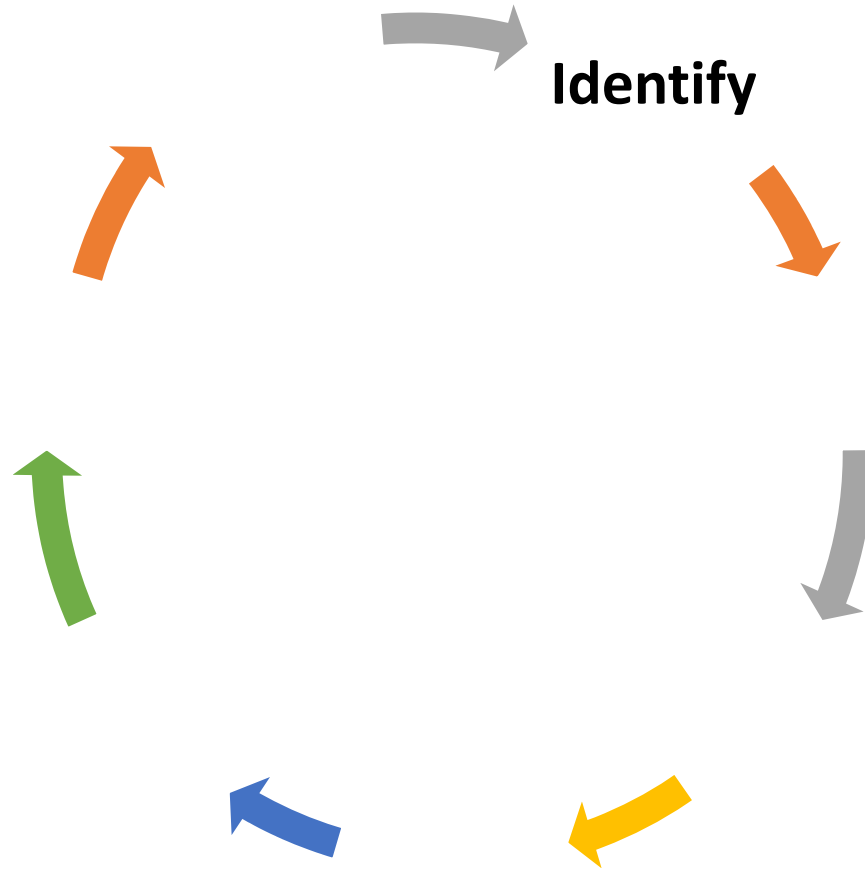
Pretrial risk assessment tools are designed to inform (not replace) judicial discretion and decision-making in the context of these reforms.

Desmarais & Lowder (2019)

Process of Pretrial Risk Assessment

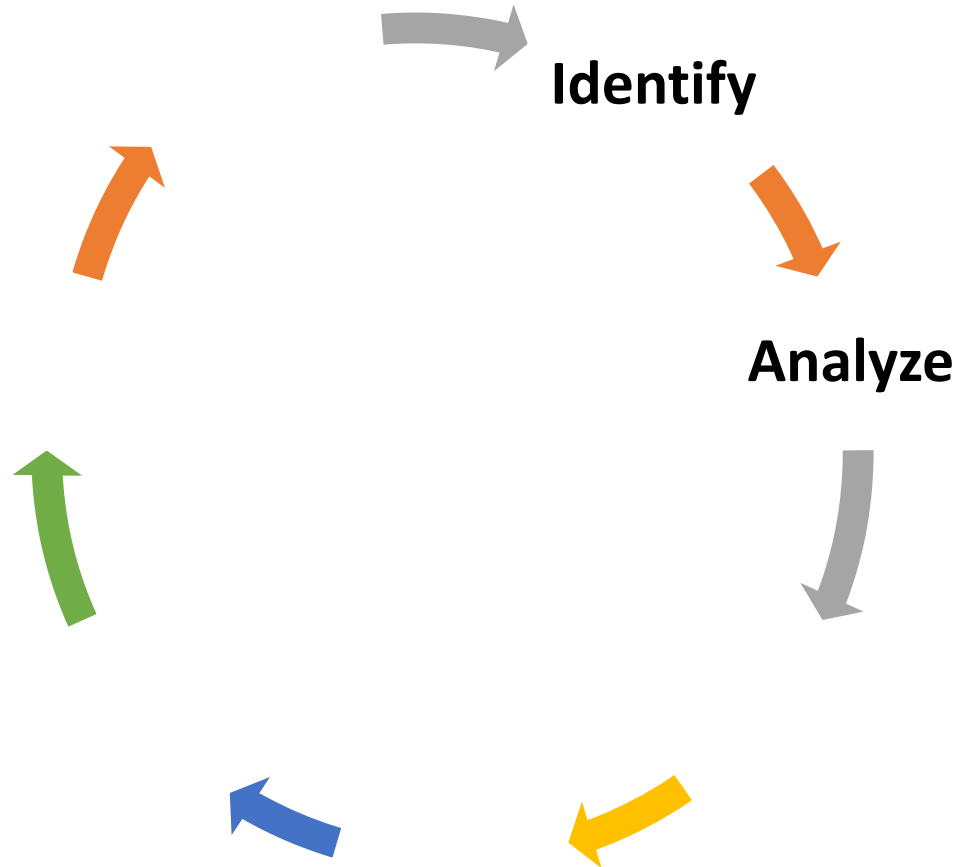


Process of Pretrial Risk Assessment



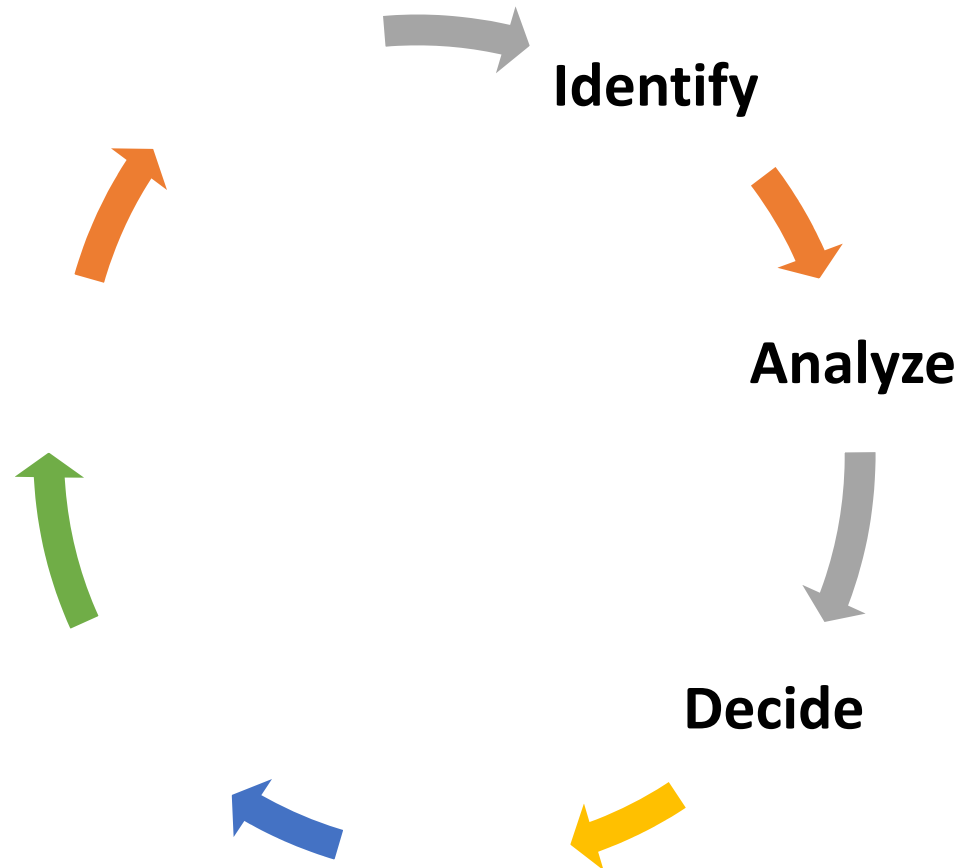
Adapted from Health Level Seven (2010)

Process of Pretrial Risk Assessment



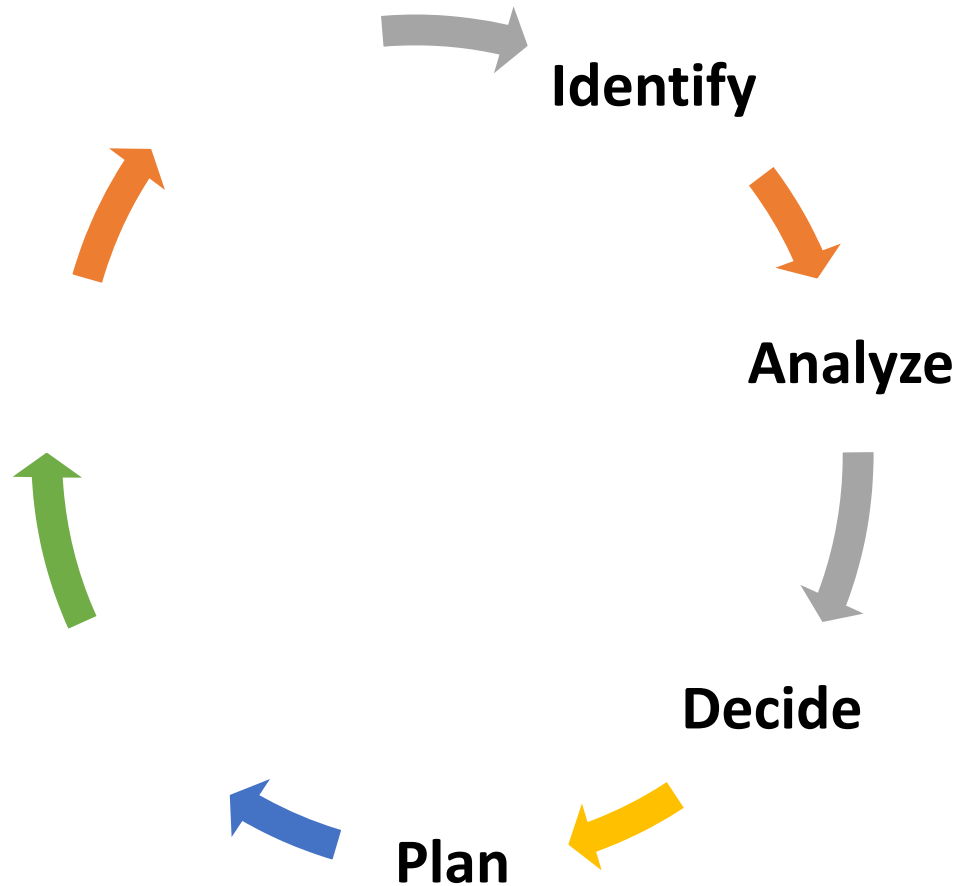
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Process of Pretrial Risk Assessment



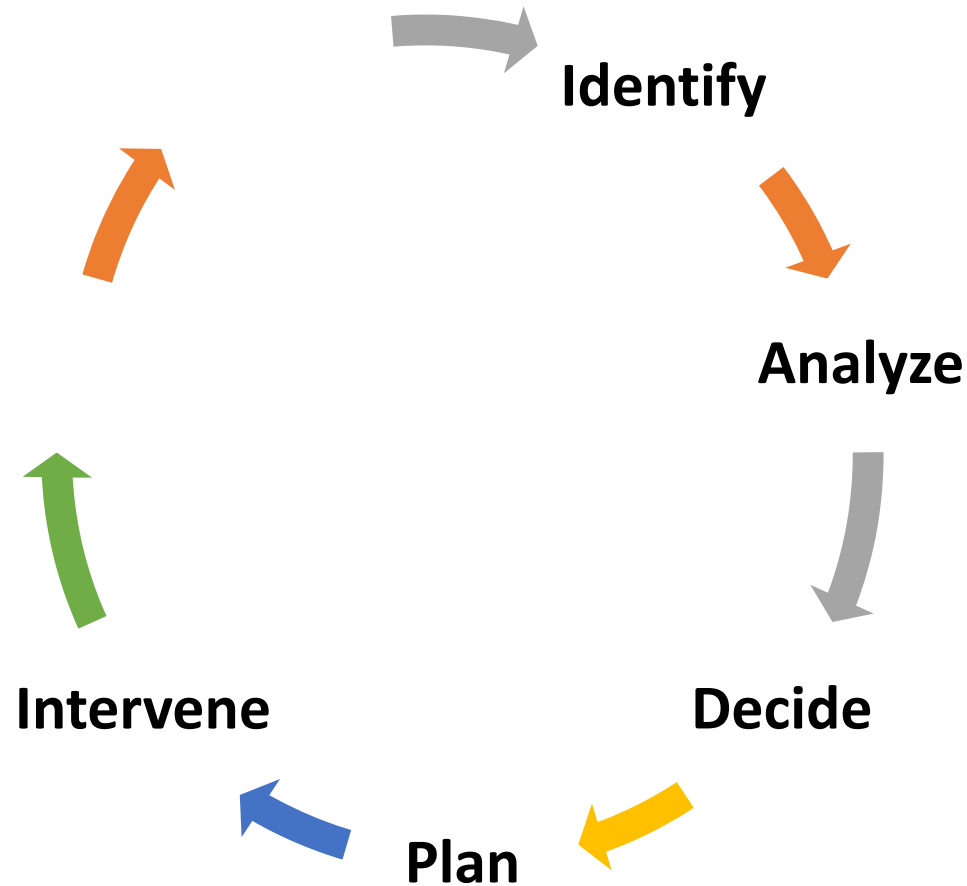
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Process of Pretrial Risk Assessment



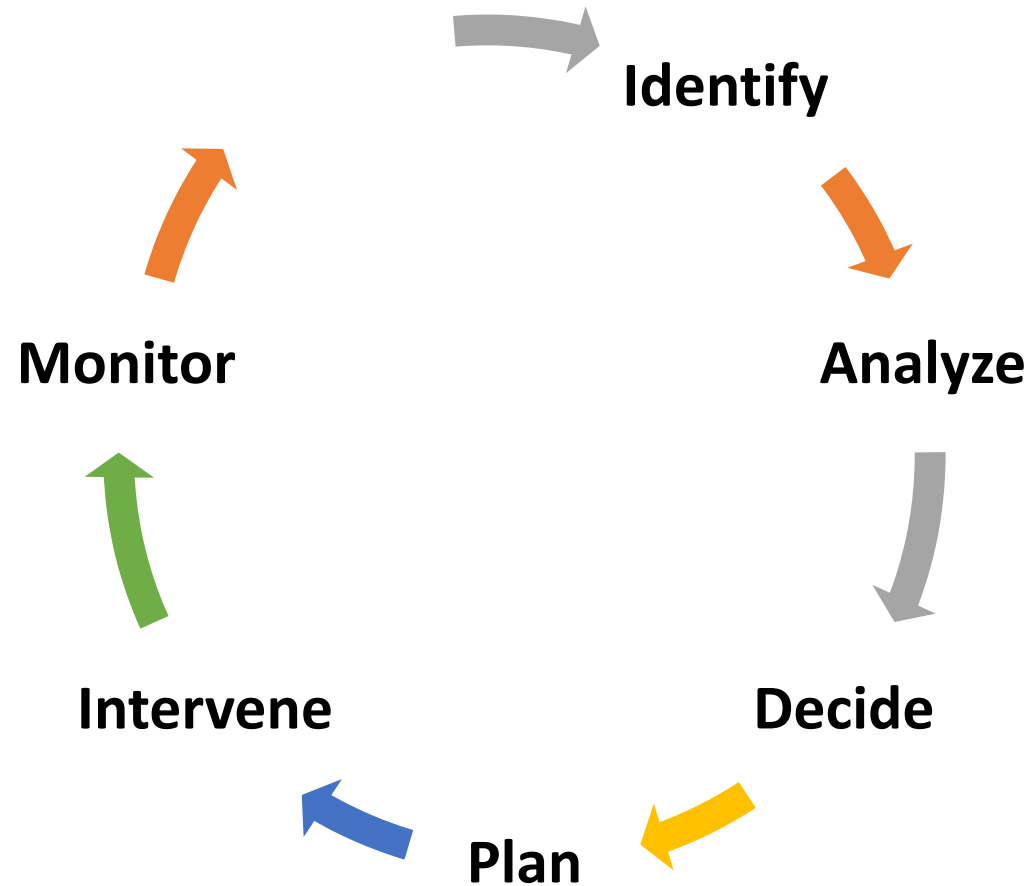
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Process of Pretrial Risk Assessment



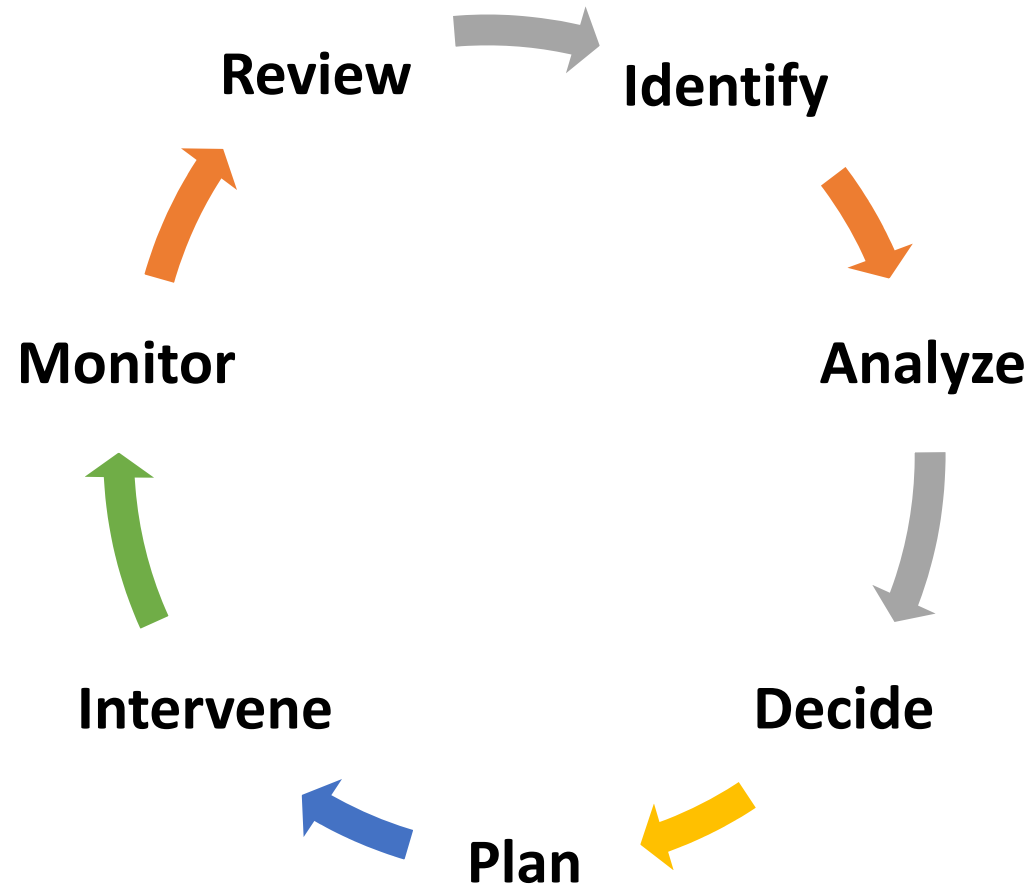
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Process of Pretrial Risk Assessment



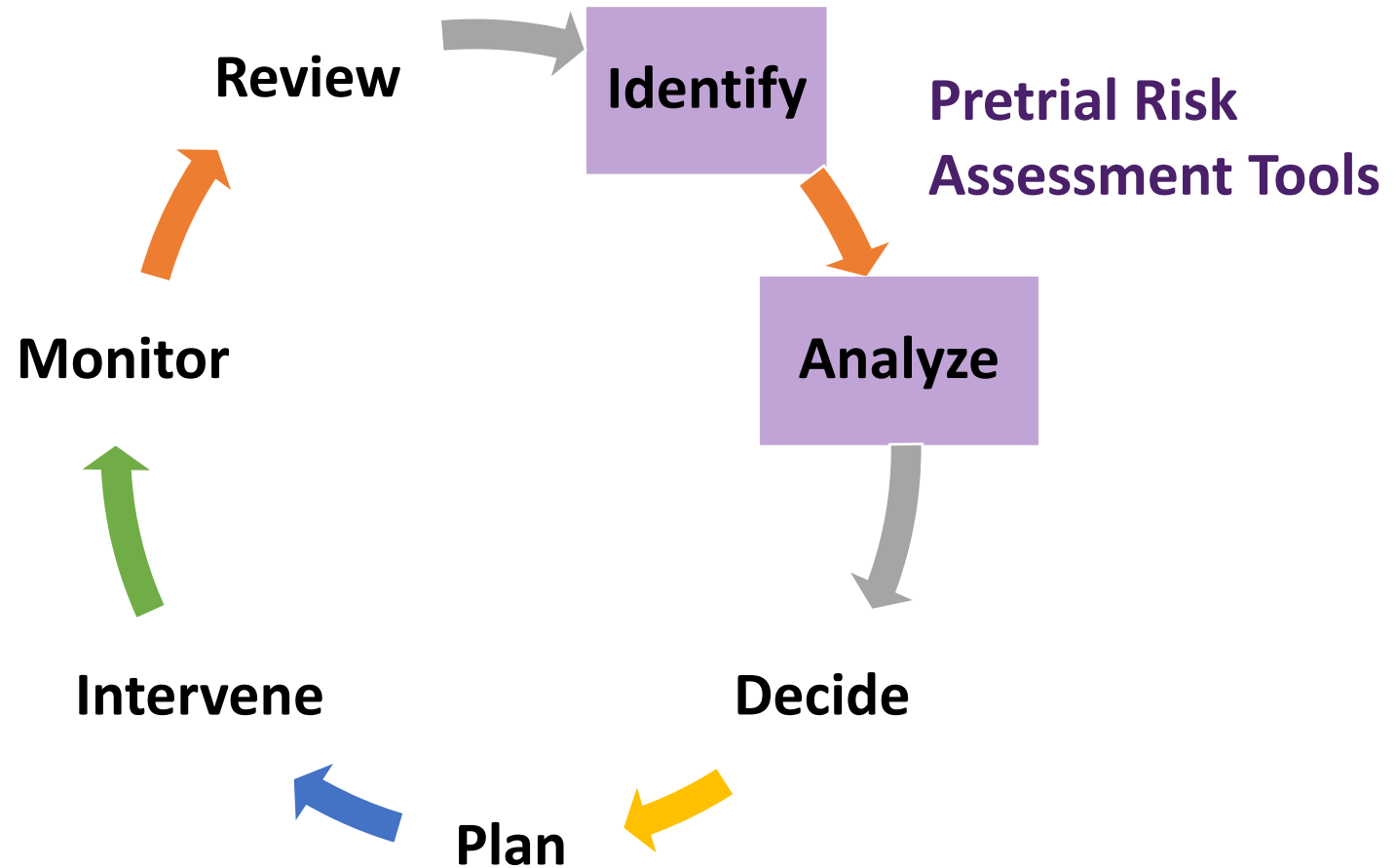
Adapted from Health Level Seven (2010)

Process of Pretrial Risk Assessment



Adapted from Health Level Seven (2010)

Process of Pretrial Risk Assessment



Adapted from Health Level Seven (2010)



Key Terms and Concepts

Risk vs. Other Types of Assessment

- Risk assessment is distinct from assessment of one particular risk factor
- Examples
 - Mental health
 - Substance use
 - Personality
 - Intelligence

Types of Factors

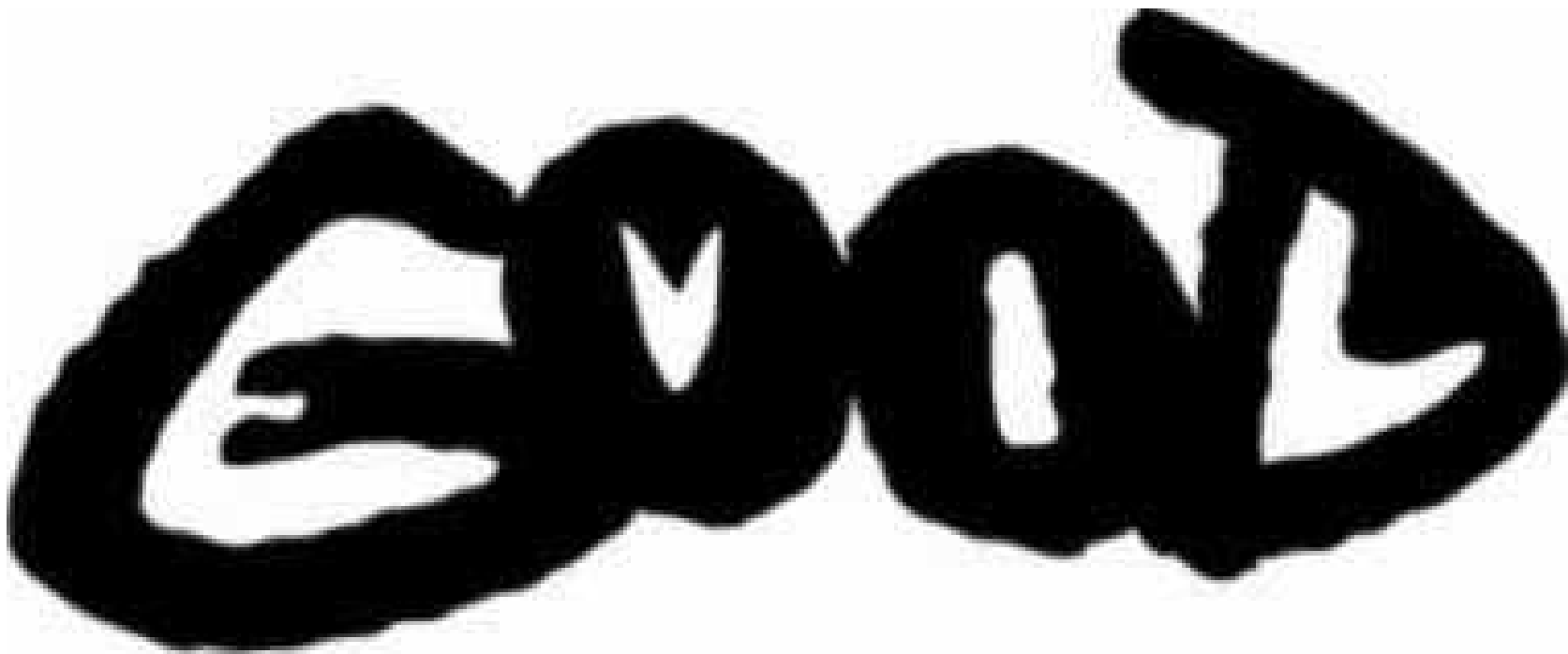
- Describe characteristics of the person, their social environment, and/or their circumstances
- Many different types of factors
 - Risk factor vs. protective factor
 - Static vs. dynamic
 - Historical vs. static
 - Stable vs. acute dynamic
 - Distal vs. proximal factors
 - Timing of risk

Risk and Protective Factors

- Risk factors
 - Characteristics statistically associated with *increased* likelihood of negative pretrial outcomes
- Protective factors
 - Characteristics statistically associated with decreased likelihood of negative pretrial outcomes
 - More than the absence of risk factors
 - Reduce the likelihood of negative outcomes among individuals exposed to risk factors



Protective Factors



GOOD



Poll #2

- What word did you see?
 - Good
 - Evil
 - Both good and evil
 - I didn't see any words

Static and Dynamic Factors

- Static factors
 - Happened in the past or cannot change
 - May speak to the absolute, lifetime risk
- Dynamic factors
 - Can change
 - May speak to the relative, short-term/current risk
 - 2 types:
 1. Stable – change slowly
 2. Acute – change quickly

Broken Leg Dilemma

- Life events and circumstances change limiting applicability of risk assessment results
 - Examples
 - Physical incapacity
 - Setting
 - Interpersonal relationships
 - Employment
 - Intervention



Buchanan, Binder, Norko & Swartz (2012)

Timing of Risk

Outcome Timeframe

- Immediate
 - Hours to days
- Short-term
 - Weeks to months
- Longer term
 - Years

Relevant Timeframe

- Proximal factors
 - Recent experiences, behaviors, or functioning
- Distal factors
 - Past experiences, behaviors, or functioning

Pretrial Risk Assessment Outcomes

- Pretrial “failure” is not one thing:
 - Any new crime
 - New violent crime
 - New nonviolent crime
 - Failure to appear
 - Technical violation or breach of conditions
 - Etc.



Approaches & Tools

Approaches to Risk Assessment

- 2 general approaches
 1. **Unstructured professional judgments**
 - Decision maker relies on their professional training and experience to make decision
 2. **Structured risk assessment tools**
 - Set list of items that are rated and combined to produce risk estimates
 - Diverse methods to combine and produce scores
 - Paper-based or computerized
 - Filled out based on records or require an interview
 - Accepted state of science and practice

Desmarais & Lowder (2019)



Poll #3

- Which approach to pretrial risk assessment is used in your court?
 - Unstructured professional judgment
 - Actuarial pretrial risk assessment tool
 - Other type of pretrial risk assessment tool

Pretrial Risk Assessment Tools

- Instruments currently used across the United States:
 - Correctional Offender Management Profile for Alternative Sanctions – Pretrial Assessment Tool (COMPAS-PAT)
 - Colorado Pretrial Risk Assessment Tool (CPAT)
 - Connecticut Risk Assessment for Pretrial Decision Making (CT Tool)
 - Level of Service (LS) instruments
 - Ohio Risk Assessment System-Pretrial Assessment Tool (ORAS-PAT)
 - (Federal) Pretrial Risk Assessment (PTRA)
 - Public Safety Assessment (PSA)
 - Vera Point Scale (VERA)
 - Virginia Pretrial Risk Assessment Instrument (VPRAI)

Instrument Characteristics

- Number of items range widely
 - Range = 7 (ORAS-PAT) to 54 (LSI-R)
- Most intended specifically for pretrial
 - Exception: LS instruments
- Most provide separate scores or probability estimates for risk of failure to appear and risk of new criminal activity
 - Definition of “criminal activity” differs
 - Only COMPAS and PSA provide probability estimates for new violent crime, specifically
- All used actuarial/algorithmic approach to estimate risk

Desmarais, Zottola, Duhart Clarke, & Lowder (2019)



Types of Items

- All tools include static and dynamic risk factors
- Protective factors included in only a few tools

Instruments	Risk	Protective	Static	Dynamic
COMPAS	X		X	X
CPAT	X		X	X
CT Tool	X	X	X	X
LSIR/LSCMI	X	X	X	X
ORAS-PAT	X		X	X
PSA	X		X	X
PTRA	X		X	X
Vera	X	X	X	X
VPRAI	X		X	X

Desmarais, Zottola, Duhart Clarke, & Lowder (2019)

Item Content

- Individual characteristics
 - Inclusion of demographic characteristics mixed
 - Most tools include personal/social and clinical characteristics

ITEMS	COMPAS	CPAT	CT Tool	LSCMI	LSIR	ORAS-PAT	PSA	PTRA	Vera	VPRAI
Demographic Characteristics	X		X	X	X		X	X	X	
Age	X						X	X		
Marital Status			X	X	X					
Citizenship Status								X		
Education			X	X	X			X	X	
Personal/Social Characteristics	X	X	X	X	X	X		X	X	X
Living Situation/Residential Stability	X	X	X		X	X		X	X	X
Employment	X		X	X	X	X		X	X	X
Financial Resources		X	X		X					
Local Family Relationships	X			X	X				X	
Character or Other References			X							
Recreational Activities				X	X					
Clinical Characteristics	X	X	X	X	X	X		X		X
Substance Use	X	X	X	X	X	X		X		X
Mental Health		X	X	X	X					
Antisocial Behavior/Attitude				X	X					

Desmarais, Zottola, Duhart Clarke, & Lowder (2019)

Item Content

- Criminal justice characteristics
 - All tools included criminal history
 - Most include information on current case/charge(s)

ITEMS	INSTRUMENTS									
	COMPAS	CPAT	CT Tool	LSCMI	LSIR	ORAS-PAT	PSA	PTRA	Vera	VPRAI
Current Case Characteristics	X	X	X	X	X		X	X		X
Current Charge	X		X		X		X	X		X
Other Pending Charges/Cases	X	X			X		X	X		X
Time in Community	X									
Criminal History	X	X	X	X	X	X	X	X	X	X
History of Pretrial Failure	X		X			X	X	X		X
Prior Revoked Bail or Suspension		X								
Prior Parole/Supervision Suspension				X	X					
Prior Misdemeanor Offenses	X		X	X	X		X		X	X
Prior Felony Offenses			X	X	X		X	X	X	X
Prior Violent Convictions				X	X		X			X

Desmarais, Zottola, Duhart Clarke, & Lowder (2019)

Example: Public Safety Assessment

RELATIONSHIP BETWEEN RISK FACTORS AND PRETRIAL OUTCOMES

Risk Factor	FTA	NCA	NVCA
1. Age at current arrest		X	
2. Current violent offense			X
<i>Current violent offense & 20 years old or younger</i>			X
3. Pending charge at the time of the offense	X	X	X
4. Prior misdemeanor conviction		X	
5. Prior felony conviction		X	
<i>Prior conviction (misdemeanor or felony)</i>	X		X
6. Prior violent conviction		X	X
7. Prior failure to appear in the past two years	X	X	
8. Prior failure to appear older than two years	X		
9. Prior sentence to incarceration		X	

Note: Boxes where an "X" occurs indicate that the presence of a risk factor increases the likelihood of that outcome for a given defendant.

Research Evidence

- Necessary (but not sufficient) condition:
 - Differentiate between people pose lesser and greater risk of engaging in these pretrial outcomes
- Performance metric
 - “Predictive validity”

Predictive validity is the ability of the risk assessments to correctly assess likelihood of pretrial outcomes.

Singh (2013)

Research Studies

- 12 studies examining validity of risk assessment tools in predicting pretrial outcomes
 - Range = 0 (LSI-R/LSI) to 5 (VPRAI)
- Large sample sizes typically drawn from multiple jurisdictions or statewide
 - Total N = 1,120,208
- Most examined failure to appear and new crime, but results not reported consistently
 - Two studies examined new violent crimes

Desmarais, Zottola, Duhart Clarke, & Lowder (2019)

Do pretrial risk assessment tools work?

- Short answer
 - Yes
- Longer answer
 - Predictive validity differs depending upon the instrument, outcome, and population
 - Failure to appear – fair to good
 - Any new crime – fair to good
 - New violent crime – fair to excellent

Desmarais, Zottola, Duhart Clarke, & Lowder (2019)



Considerations



Considerations

- Many important issues and considerations related to use of pretrial risk assessment tools:
 - Implementation
 - Risk management
 - Bias
 - Impact

Implementation

- Tool selection has implications for implementation
 - Who can complete the tool?
 - With what information?
 - When?
 - How?
- Implementation can be time-intensive and costly, but critical to outcomes

Even a well-validated risk assessment tool will not produce accurate estimates if it is not used correctly.

Desmarais & Lowder (2019)

Bias

- Quality and accuracy of pretrial risk assessment depends upon quality and accuracy of information used to complete it
- There is no evidence that pretrial risk assessment tools produce estimates that are more biased

“Risk assessment tools may not achieve a defined notion of fairness, but rather be comparatively better than status quo.”

(Partnership on AI)

Improving Pretrial Outcomes

- Accurate and reliable risk assessments do not improve pretrial outcomes (by themselves)



Risk Assessment ≠ Pretrial Decision

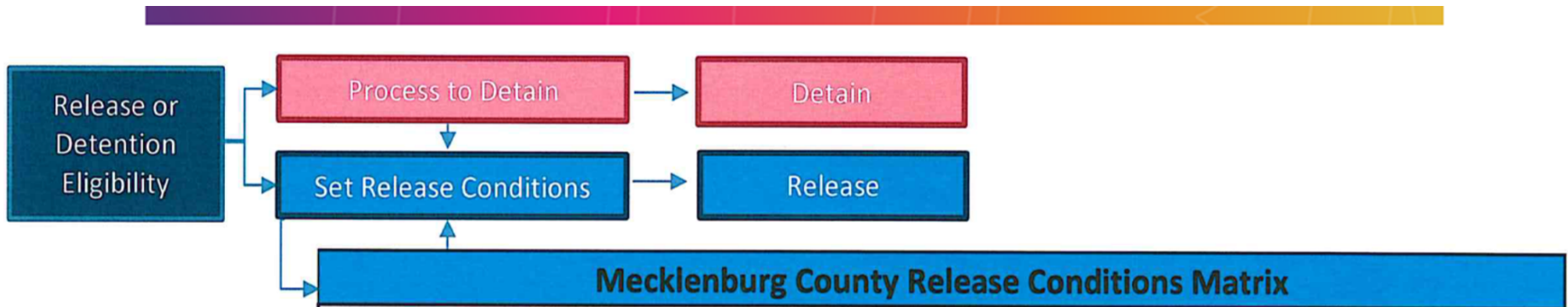
- Each jurisdiction must develop guidelines regarding how to use results
- Release conditions matrix
 - Developed by local stakeholders to guide pretrial release conditions based upon risk scores

A pretrial risk assessment tool estimates a person's risk; a release conditions matrix (or other guidelines help manage that risk.)

www.psapretrial.org

Example: Release Conditions Matrix

	New Criminal Activity (NCA) Scaled Score					
Failure to Appear (FTA) Scaled Score	1	2	3	4	5	6
1	Release Level 1	Release Level 1				
2	Release Level 1	Release Level 1	Release Level 1	Release Level 1	Release Level 2	
3		Release Level 1	Release Level 1	Release Level 1	Release Level 2	Release Level 3
4		Release Level 1	Release Level 1	Release Level 1	Release Level 2	Release Level 3
5		Release Level 2	Release Level 2	Release Level 2	Release Level 2	Release Level 3
6				Release Level 3	Release Level 3	Release Level 3



Mecklenburg County Release Conditions Matrix						
<i>New Criminal Activity Scaled Score</i>						
<i>Failure to Appear Scaled Score</i>	1 (90.9% No New Criminal Activity)	2 (80.1% No New Criminal Activity)	3 (70.7% No New Criminal Activity)	4 (62.7% No New Criminal Activity)	5 (54.3% No New Criminal Activity)	6 (46.4% No New Criminal Activity)
1 (87.4% Appear for Court)	WPA or Unsecured	WPA or Unsecured				
2 (85.4% Appear for Court)	WPA or Unsecured	WPA or Unsecured	WPA or Unsecured	Administrative CDPO	Standard CDPO	
3 (83.8% Appear for Court)		WPA or Unsecured	WPA or Unsecured	Administrative CDPO	Standard CDPO	Standard or Intensive CDPO
4 (74.4% Appear for Court)		WPA or Unsecured	Unsecured or Administrative CDPO	Administrative or Standard CDPO	Standard CDPO	Intensive CDPO
5 (66.2% Appear for Court)		WPA or Unsecured	Unsecured or Administrative CDPO	Administrative or Standard CDPO	Standard or Intensive CDPO	Intensive CDPO
6 (61.2% Appear for Court)				Standard CDPO	Standard or Intensive CDPO	Intensive CDPO

WPA-Written Promise to Appear; CDPO- Place in the Custody of Designated Person or Organization

Poll #4

- How familiar are you with the Risk-Need-Responsivity (RNR) model?
 - Not at all familiar: *“I’ve never heard of it.”*
 - Slightly familiar: *“I’ve heard of it, but don’t know what it is.”*
 - Somewhat familiar: *“I know a bit about it, but haven’t used it in practice.”*
 - Very familiar: *“I use it to inform my decision-making.”*

Informing Decisions & Interventions

- Risk-Need-Responsivity Model
 - Best practice for assessing and treating people involved in the criminal justice system
 - Framework for how to use results of pretrial risk assessment instruments to inform decision-making and intervention
- Improve pretrial outcomes with adherence to:
 1. Risk principle
 2. Need principle
 3. Responsivity principle

Andrews & Bonta (2010)

Risk Principle

- Match level of risk
 - Higher risk → more supervision/resources
 - Lower risk → less supervision/resources
- Over-intervening → increase adverse outcomes
 - Increase risk factors
 - Reduce protective factors
 - Worse case outcomes

Balance public safety risk with risks of pretrial detention and individual rights to inform level of supervision and intervention.

Need Principle

- Interventions should address risk and protective factors relevant to that individual
 - Many different reasons for failure to appear in court
 - Examples
 - Forgot
 - Intentionally didn't show up
 - Work/transportation
 - Many different factors that contribute to public safety threat
 - Examples
 - Substance use
 - Attitudes
 - Anger



Responsivity Principle

- Take into account factors that can affect outcomes for that individual
 - Examples
 - Intellectual functioning
 - Maturity
 - Mental health symptoms
 - Motivation
- Build upon individual strengths

Impact

- Other strategies may achieve the goals of:
 - Improving public safety
 - Reducing rates of pretrial detention
 - Reducing costs/burdens of judicial processes
 - Etc.
- Few studies examining the impact of pretrial risk assessment tools on these outcomes
 - No evidence that they exacerbate these outcomes
 - Some early evidence that they may help jurisdictions move towards these goals

Thank you!

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