



the Parole Board

working with others
to protect the public



It ain't what you don't
know that gets you
into trouble. It's what
you know for sure that
just ain't so.

-- Mark Twain



Baxstrom, Dixon and beyond



**Baxstrom v. Herold 383 U.S.
107 (1966)**

**Dixon v. Attorney General of
the Commonwealth of
Pennsylvania, 1971**

Risk Assessment- unstructured judgment

- “...psychiatrists and psychologists are accurate no more than one out of 3 predictions of violent behavior over a several year period among institutionalized populations that had both committed violence in the past (and thus had high base rates for it) and who were diagnosed as mentally ill” (pp. 47, 49)

– (Monahan (1981):The Clinical Prediction of Violent Behavior; Rockville;NIMH)



“Unstructured” Clinical Judgment

- **Can be very intuitive and idiosyncratic**
 - Swedish research (Belfrage, 1998)
 - > 640 offenders sentenced to psychiatric treatment
 - > 90% ‘risk of severe criminality’ (c.f. 50% base rate)

Two problems:

- **research had not identified empirically supported risk factors associated with violence**
- **even when some valid factors were identified, it was difficult for clinicians to systematically assess them or to understand how they went together**



To say that something is difficult to do (namely, to achieve high levels of accuracy in predicting events with very low base rates) is NOT the same as asserting that the task is impossible and simply cannot be done

Saleem Shah, 1979



Clinical Prediction

- “relies on an informal, ‘in the head,’ impressionistic, subjective conclusion, reached (somehow) by a human judge”

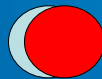
–Source: Grove & Meehl (1996, pp. 293-4)

Actuarial Prediction

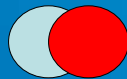
- “involves a formal, algorithmic, objective procedure (e.g. equation) to reach the decision”



Development of life table life expectancies at age 65 for Australian males



Paternal
Death < 65



Smoking >
10 Years



Obesity-
BMI>30



Diabetes

Living

Dead



Actuarial Risk Assessment

- Identification of individuals at higher risk because of selected traits that correlate with criminal recidivism
- Established through empirical association of traits with offending



Clinical vs. Statistical Prediction of Risk

(Hanson & Bussiere, 1999)

n Sexual Recidivism

n Clinical Assessment $r = .10$

n Nonsexual Violent Recidivism

n Clinical Assessment $r = .06$

n General Recidivism

n Clinical Assessment $r = .14$

n Mentally Ill Offenders and Violent Recidivism

(Bonta, Law, & Hanson, 1998)

n Clinical Judgment $r = .03$



Clinical vs. Statistical Prediction of Risk

(Hanson & Bussiere, 1999)

n Sexual Recidivism

n Clinical Assessment $r = .10$

n Statistical $r = .46$

n Nonsexual Violent Recidivism

n Clinical Assessment $r = .06$

n Statistical $r = .46$

n General Recidivism

n Clinical Assessment $r = .14$

n Statistical $r = .42$

n Mentally Ill Offenders and Violent Recidivism

(Bonta, Law, & Hanson, 1998)

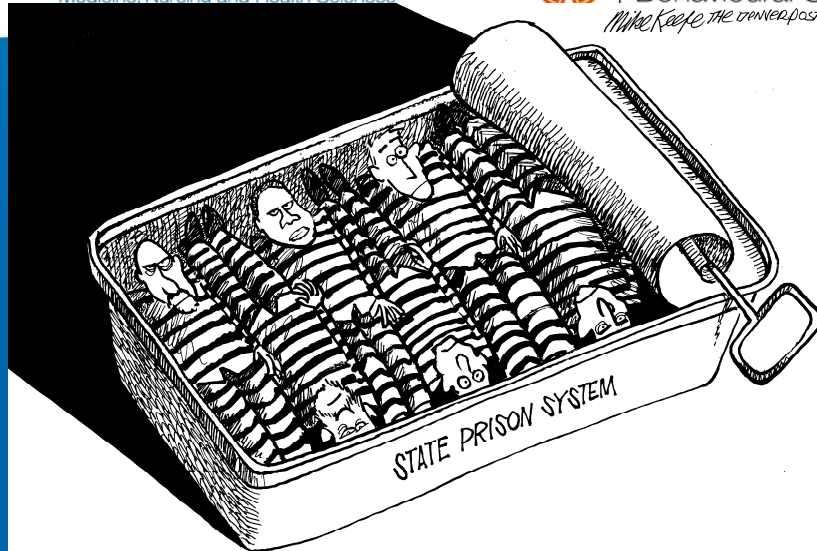
n Clinical Judgment $r = .03$

n Statistical/Objective $r = .39$



What Actuarial/Standard Measures Can Not Do

- Predict rare occurrence (“crime of the century”)
- Address violence from mental health disorders
- Predict first offences
- Prove prevention
- Hold statistical accuracy for individual assessments
- Replace educated assessors



• Risk Need Assessments

– focus on risk-needs assessments

- | recognizes relationship between offender needs and criminal behaviour
- | recognition of the importance of providing services based on need to manage risk
- | concept of matching treatment services to criminogenic needs of offenders



Limitations of risk need assessments:

- requires further understanding of criminogenic variables
- must not replace risk assessment
 - indeed, as Bonta (1996) points out, "criminogenic needs are also risk predictors, but they are dynamic risk predictors"



Moving beyond the actuary: Contemporary conceptualisation of “risk” assessment and management



- **Three purposes:**

- One off, context free predictions...based on a consistent algorithm – PREDICTION
- Review of static and dynamic risk factors to PRIORITISE cases for management and intervention
- Ongoing day-to-day decisions about management and treatment – REDUCTION



WHAT IS RISK?

- Likelihood of an ~~outcome~~ outcome
 - Risk of rain
 - Risk of car accidents
 - Risk of cancer
 - Risk of violence
- **A *risk factor* is simply something statistically associated with the outcome of interest**
- **Not necessarily causal, just an association**



RISK ASSESSMENT & RISK REDUCTION

- **If our aim is to reduce risk, we must focus on two things:**

- Identifying factors that are causally related to the heightened risk state
- Identifying which of these factors can be changed (spontaneously or through intervention) to reduce risk

Douglas & Skeem, 2005



Risk status: baseline relative to others

- **Based on static (unchangeable) risk factors**
- **Tells us about the required intensity of intervention**

Risk state: variable risk relative to self

- Based on interaction of static and dynamic (changeable) risk factors
- Tells us about where to intervene to reduce risk



RECOMMENDED PRACTICE

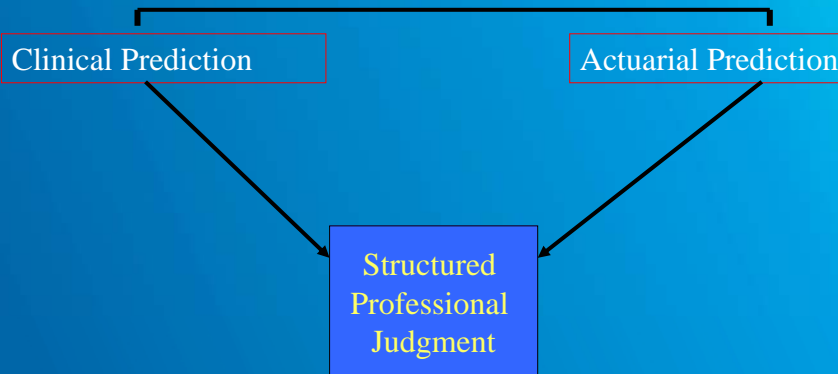
- **A comprehensive risk assessment will make reference to both risk status and risk state**
- **At present, a widely accepted and evidence-based way to conduct this type of comprehensive risk assessment is by using a *structured professional judgement* tool**
- **e.g. The HCR-20**



STRUCTURED PROFESSIONAL JUDGEMENT

- The structured professional judgement model provides guidelines for assessing risk in systematic and structured manner
 - Evidence based
 - Flexible to individual differences
- An SPJ tool acts as an 'aide memoire'
 - Provide guidelines to ensure you don't miss things
 - Are not overly prescriptive

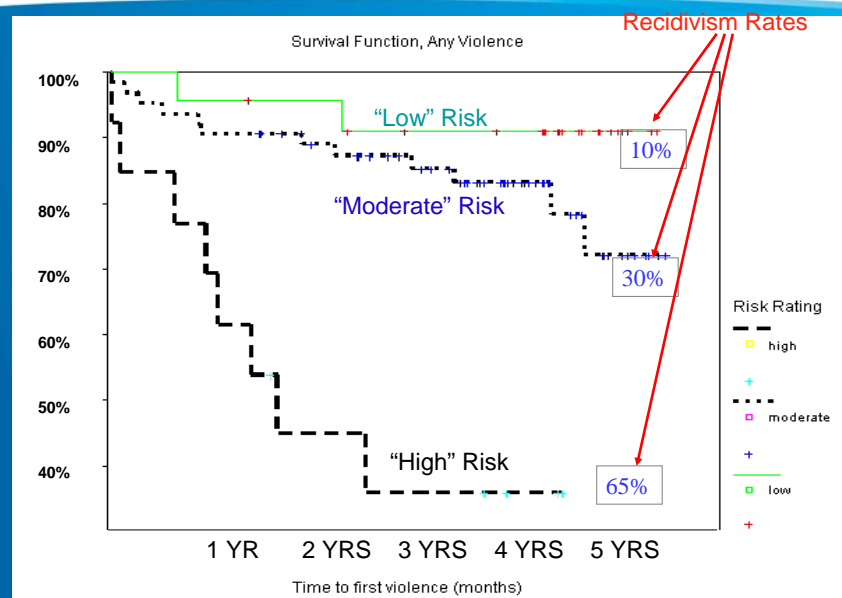
Structured Professional Judgment



HCR-20 in FMH sample

Douglas, Ogloff, & Hart (2003), *Psychiatric Services*

- **Research questions**
 - Reliability and validity of *structured clinical risk ratings*
- **Method**
 - 100 forensic psychiatric (NCRMD) patients released from maximum security institution
 - Overlapped coding on half of patients ($n=50$) to permit interrater reliability analyses
 - Violence measured through criminal records and records of re-admission to hospital/forensic hospital



Douglas, Ogloff et al. (JCCP, 1999)

- **193 involuntarily committed civil psychiatric patients appearing before review boards**
 - 61% male; $M = 38$ yrs
 - 44% schizophrenia; 95% prior hospitalization
 - 40% prior violence; 26% violent 2 weeks before admission
- **PCL:SV and HCR-20 coded from hospital and review board records**
 - interrater reliability = .80 for HCR-20 and PCL:SV

Odds of Community Violence

(Source: Douglas, Ogloff, et al., 1999; $N = 193$)

	HCR (19)
Any	5.86*
Physical	6.14*
Violent Arrest	13.25*



**SMOKING DOUBLES
YOUR RISK OF STROKE**
Health Authority Warning

Quitting
131 848

MINOR STROKE

Smoking narrows the arteries to your brain causing them to become blocked. This causes a stroke that can result in permanent paralysis, inability to speak, disability or death.

You CAN quit smoking. Call **Quitline** 131 848, talk to your doctor or pharmacist, or visit www.quitnow.info.au

2 x versus

6 x

13 x



The ethics of employing actuarial predictions methods

“Whenever statistical prediction rules are available for making a relevant prediction, they should be used in preference to intuition...”

Dawes, 2005



Conclusions: Facts in Risk Assessment

- 1. Unstructured professional judgement alone has no demonstrated validity and therefore no probative value**
- 2. Validated actuarial measures can provide class-based probabilities of risk**
- 3. Actuarial risk assessment measures are insensitive to change**
- 4. Actuarial measures do not enable the determination of whether the individual being assessed falls into the recidivist or non-recidivist groups**



Conclusions: Facts in Risk Assessment

5. The predictive validity of validated structured professional judgment measures and actuarial measures are generally equal
6. Structured professional judgement approaches can assist the clinician in the formulation of risk and can assist with risk management by helping to identify targets for change
7. Dynamic risk factors are useful in understanding offending in an individual but as yet have limited validity in predicting risk over the long-term
8. (If offenders are monitored closely, and dynamic factors are repeatedly re-assessed, they can determine when recidivism is likely to occur)