Applying the Concept of Positive Deviance to Group Sex Events (GSE)

Concept developed from child nutrition studies in **resource-poor environments**

Samuel Friedman applied concept to **risk environments** for PWUID in New York City

indigenous prevention tactics: "*behavioural rules or practices that help subjects control their personal risk, even though they have engaged in* high-risk activities *for lengthy periods*."

Friedman, Samuel R. et al. 2008. Positive deviance control-case life history: a method to develop grounded hypotheses about successful long-term avoidance of infection. *BMC Public Health,* 8(1): 94.

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"**Boundary Play**" or "**Edgework**" "the paradoxical desire to remain safe in dangerous environments which one has voluntarily entered".

O'Byrne, P. and D. Holmes 2011. Desire, drug use and unsafe sex: Examination of gay men who attend gay circuit parties, *Culture, Health and Sexuality*, 13(1): 1-13.

sero-adaptive strategies for sexual behaviour

Cassels, S. and D. Katz. 2013. Seroadaptation among Men Who Have Sex with Men: Emerging Research Themes. *Current HIV/AIDS Reports* ,10(4): 305-313.

harm reduction strategies for substance use

Greenspan, N., et al. 2011. "It's not rocket science, what I do": Self-directed harm reduction strategies among drug using ethno-racially diverse gay and bisexual men. *International Journal of Drug Policy,* 22(1): 56-62.

All these concepts share three important aspects:

Expertise, Autonomy + Rationality

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- GSE - High levels of polysubstance use + high risk sex = risk environment

  Mimiaga, M., et al. 2011. Sex parties among urban MSM: An emerging culture and HIV risk environment. *AIDS and Behavior*, 15:305–318.

- **Momentum GSE** = private sex parties, darkroom/blackout events

- Do Momentum participants who attended GSE in past 6 months practice Positive Deviance/Boundary Play compared with those who did not attend GSE?

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Momentum Questionnaire – "Prevention Strategies"- disclosure, sero-sorting, strategic positioning, treatment as prevention

Differentiated by sero-status:

1) HIV –positive
2) HIV – negative or unknown

Use multivariable logistic regression and Adjusted Odds Ratios to compare behaviour of men who attended GSE in past 6 months (n =180) VS. those who did not (n=539)

Odds Ratios

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$$\text{Odds} = \frac{p}{1-p} = \frac{\text{prob. of an event}}{\text{probability of no event}}$$

Example heads or tails with a coin

$$\text{Odds}_{\text{Heads}} = \frac{0.50}{1-(0.50)} = \frac{0.50}{0.50} = 1.0$$

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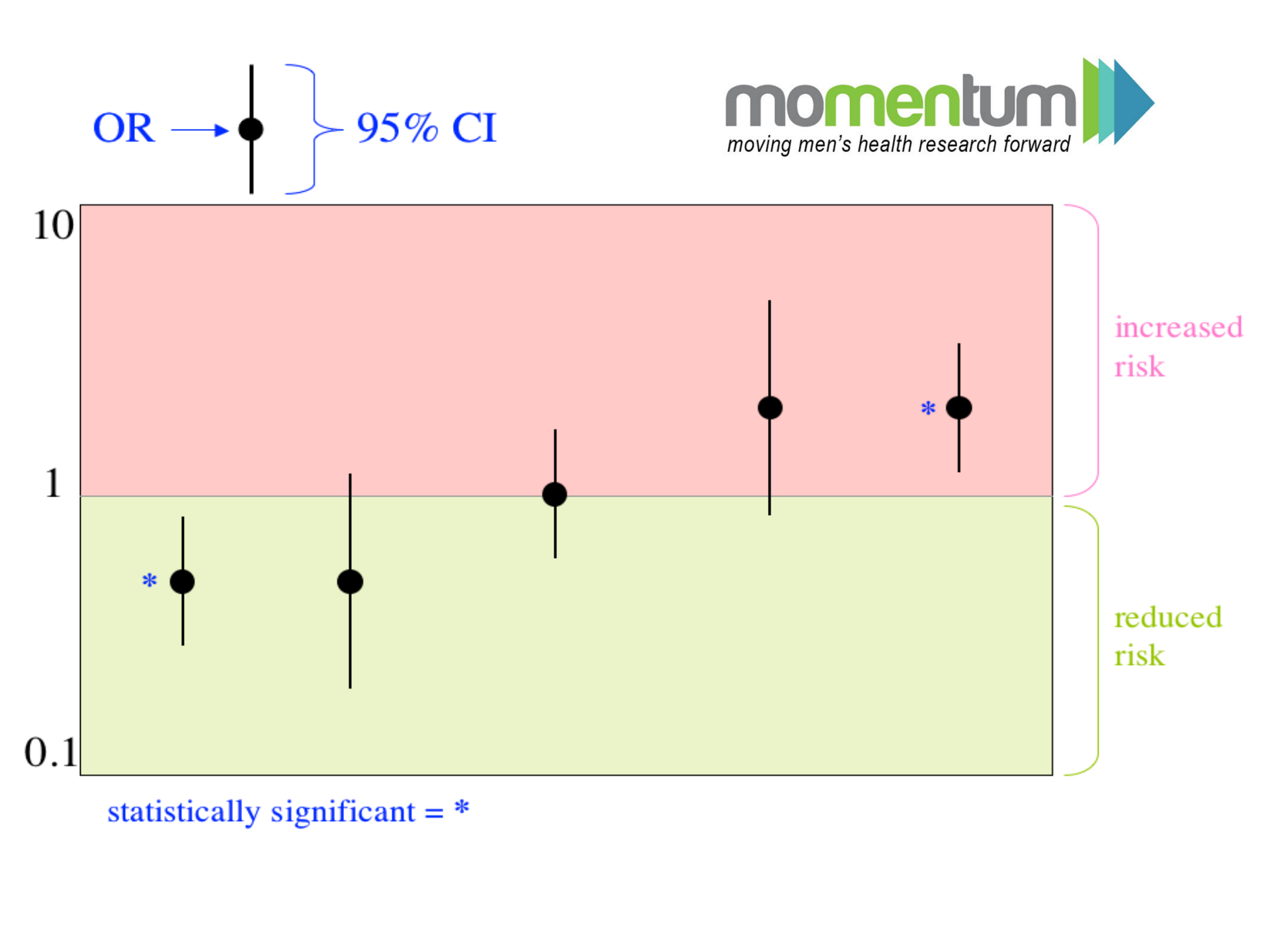
Relationship between odds and probability can be shown as:

Probability	Odds	
.1	.11	<1.0 = negative odds
.2	.25	
.3	.43	
.4	.67	
.5	1.00	Even odds
.6	1.50	
.7	2.33	
.8	4.00	
.9	9.00	>1.0 = positive odds


OR
95% CI
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10
1
0.1
*
*
increased risk
reduced risk
statistically significant = *

Sero-Adaptive Strategies of HIV+ Men Who Attend GSE

SIGNIFICANT VARIABLES (Probability <.05)	ADUSTED ODDS RATIO (95% CI)
UAI with HIV+ guys (Sero-Sorting)	3.88 (1.91, 7.88)
Withdrawal	2.41 (1.13 -5.10)

Sero-Adaptive Strategies of HIV- Men Who Attend GSE

SIGNIFICANT VARIABLES (Probability <.05)	ADUSTED ODDS RATIO (95% CI)
Assumption of anal sex partner's HIV status if not disclosed "*Look for other Signs*"	3.17 (1.47, 6.85)
UAI only with HIV- guys (Sero-sorting)	0.52 (0.30, 0.89)
UAI only with guys with low viral loads or on HIV treatment (Treatment as Prevention)	4.90 (2.46, 9.77)

SUMMARY

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1) **Positive Deviance** – Varies by sero-status:

- Sero-sorting for HIV+ men
- Treatment as Prevention for HIV- men

New consideration of "high risk" sex definition and sero-adaptation

Our current definition of high-risk sex:

"UAI with sero-discordant or unknown sero-status partner"

HIV-negative GSE attendees prevention strategy:

"UAI with HIV- positive men who have low viral loads or are treatment".

SUMMARY

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Limitations

1) Behavior for GSE attendees, not behavior at GSE
2) Doesn't address cultural, group aspects of GSE
3) Doesn't include consideration of PEP or PrEP
4) Other possible indigenous prevention tactics not identified

Thank you

Question/Comments: ericroth@uvic.ca

University of Victoria

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