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The online tool at www.metaanalysisonline.com enables user-friendly meta-analyses offering visualizations like forest plots, funnel plots, and Z-score plots without the need of programming skills.

BACKGROUND

- A meta-analysis is a quantitative study design that consolidates research findings to draw ample conclusions.
- We developed a new tool to enhance visualization options for conducting meta-analyses of epidemiological studies and clinical trials.

METHODS

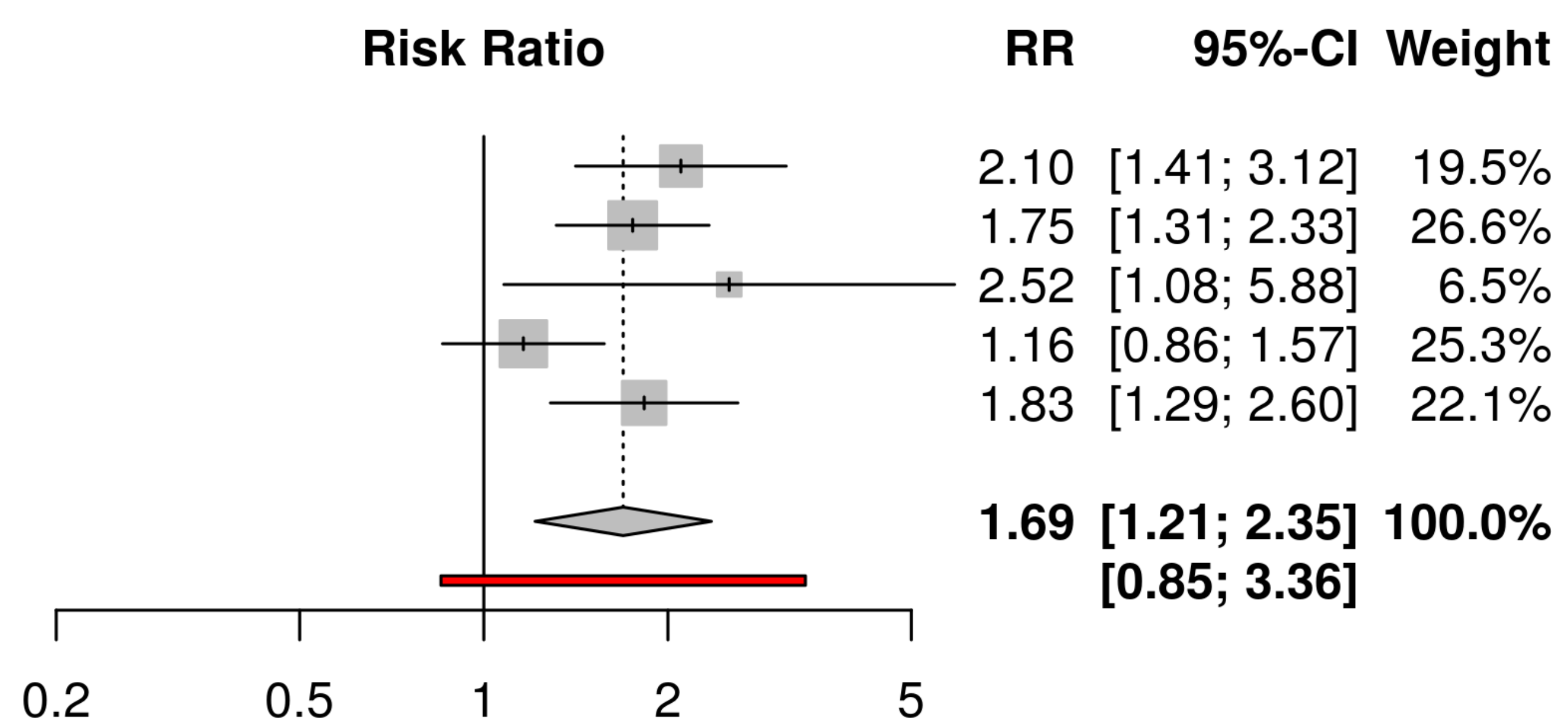
- The online platform can take binary, continuous, or time-to-event data, using models like random and fixed effects.
- We implemented forest plots to show heterogeneity, funnel plots to detect publication bias, and Z-score plots to assess sample robustness.

RESULTS

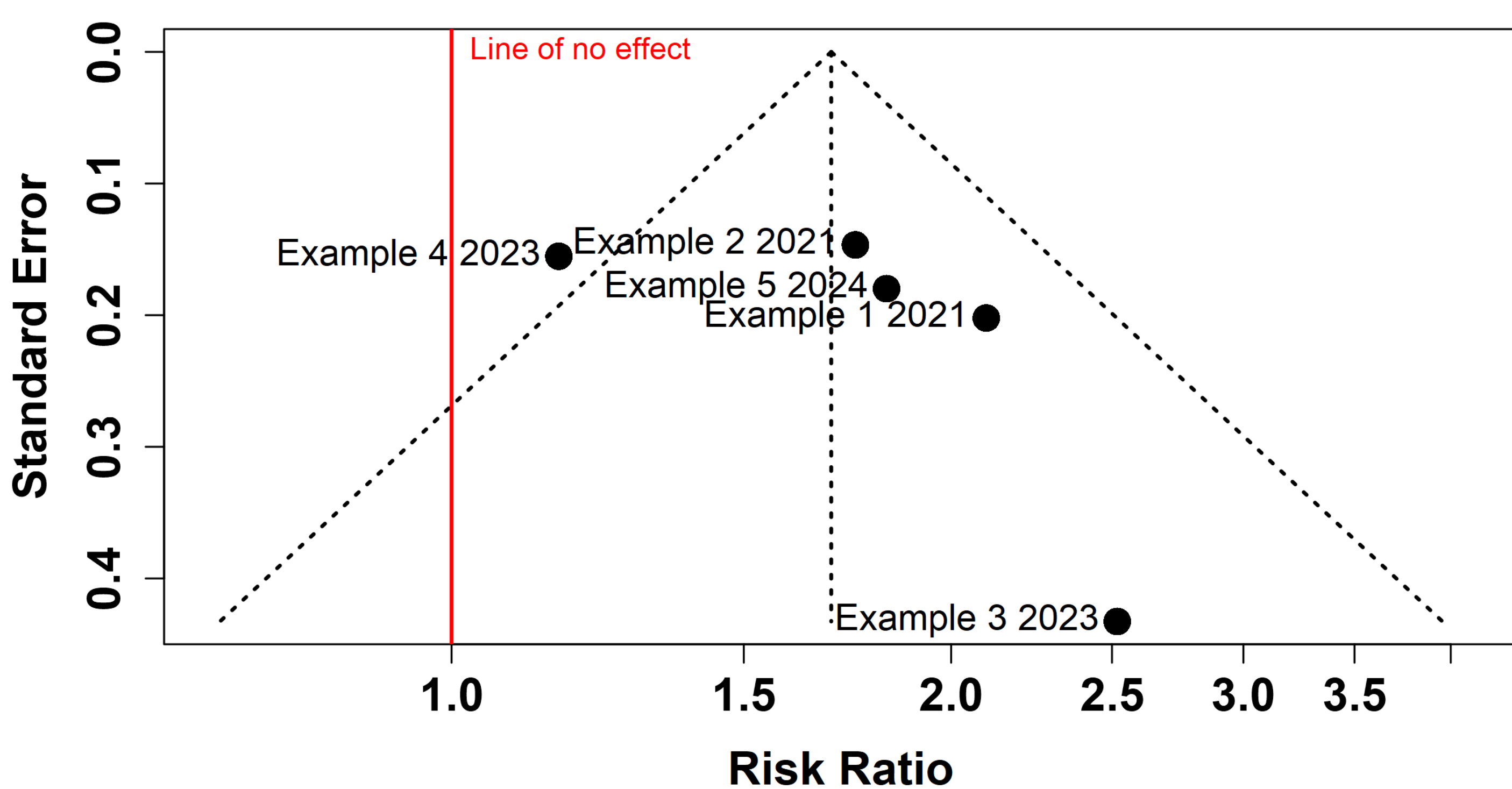
Forest plot:
illustrate heterogeneity and pooled results

Study	Experimental		Control	
	Events	Total	Events	Total
Example1, 2020	25	215	171	3088
Example2, 2021	65	588	120	1901
Example3, 2021	5	46	107	2479
Example4, 2022	26	67	1168	3493
Example5, 2023	32	407	269	6256
Random effects model	1323		17217	
Prediction interval				

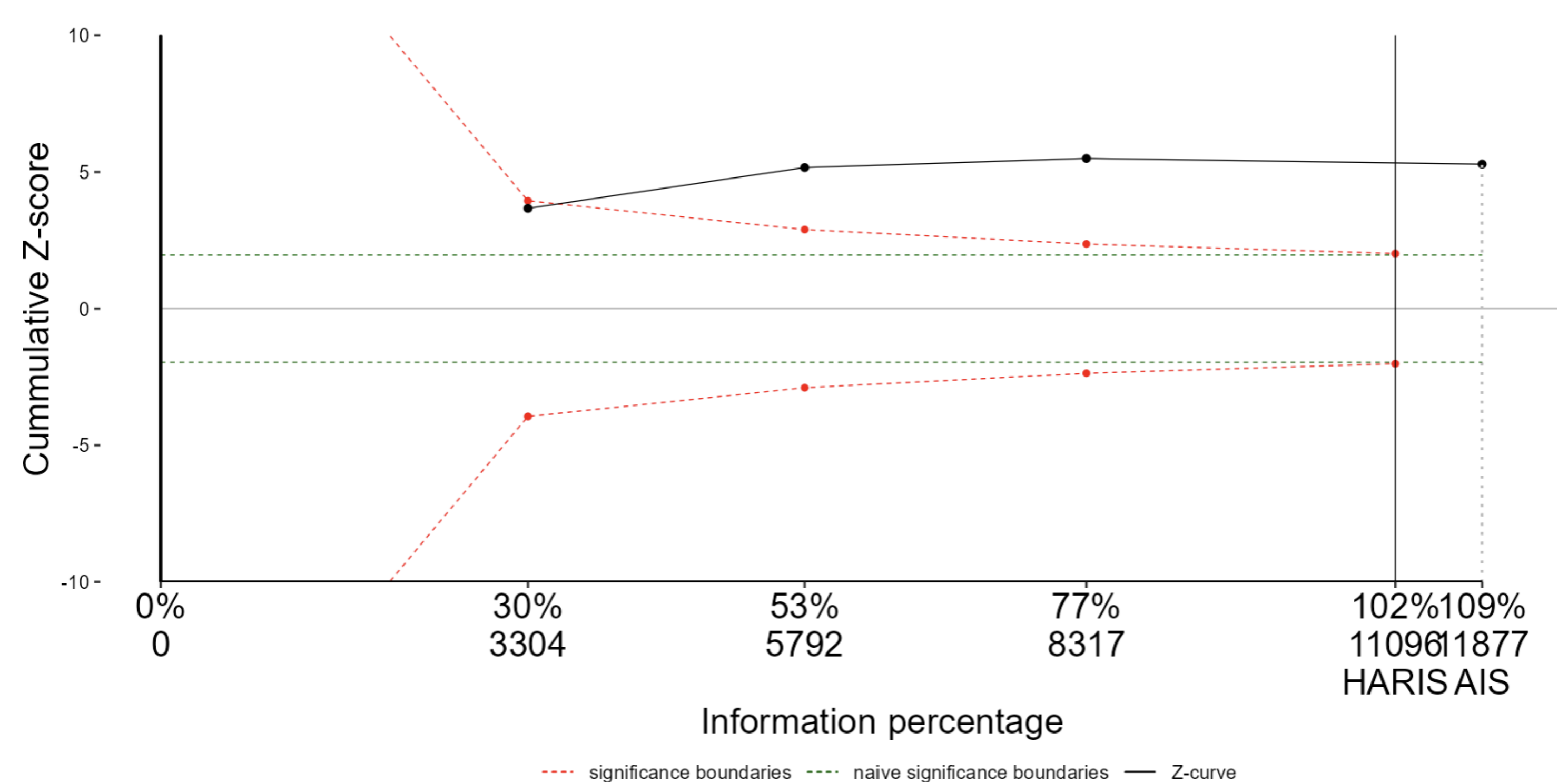
Heterogeneity: $I^2 = 50\%$, $\tau^2 = 0.0322$, $p = 0.09$
 Test for overall effect: $t_4 = 4.39$ ($p = 0.01$)



Funnel plot:
uncover potential publication bias



Z-score plot: demonstrate the robustness of the sample size used



CONCLUSION

Our platform offers a user-friendly meta-analysis tool for epidemiological studies and clinical trials, enabling quick and reproducible integration of results.

