

Beyond Boolean

- What's been done?
 - Boudin et al. [11], Schardt et al. [71], and Hoogendam et al. [32] incorporate **clinical labels** (PICO) into query formulation
- What's the gap?



GAP

Ad-hoc experiments, only incorporate PICO into query formulation, do not consider **documents**

[11] Florian Boudin, Jian-Yun Nie, and Martin Dawes. Clinical information retrieval using document and pico structure. In Human Language Technologies: The 2010 Annual Conference of the North American Chapter of the Association for Computational Linguistics, pages 822–830. Association for Computational Linguistics, 2010.

[71] Connie Schardt, Martha B Adams, Thomas Owens, Sheri Keitz, and Paul Fontelo. Utilization of the pico framework to improve searching pubmed for clinical questions. BMC Medical Informatics and Decision Making, 7(1):16, 2007.

[32] Arjen Hoogendam, Pieter F de Vries Robbe, and A John PM Overbeke. Comparing patient characteristics, type of intervention, control, and outcome (pico) queries with unguided searching: a randomized controlled crossover trial ec. Journal of the Medical Library Association, 100(2):121, 2012.

Beyond Boolean

- What's been done?
 - Karimi et al. [37] found that non-Boolean queries can **outperform Boolean queries** for this task
- However:
 - Boolean queries are used in the systematic review protocol to **explicitly control** the search system and for **reproducibility**