

Systematic Review of Guidelines for Health Economic Evaluations

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Background

- ❖ **Health economic (HE) evaluations are used by many decisionmakers**
- ❖ **Numerous guidelines on conduct and reporting of health economic evaluations have been developed over the last three decades**
- ❖ **Guidelines differ to some degree in their objectives, scope and specific recommendations**

Objectives

- ❖ To perform a systematic review of all publicly accessible guidelines for HE evaluations
- ❖ To survey the guidelines in terms of their scope and content of recommendations
- ❖ 1st step in a broader initiative

Methods...

❖ Systematic search of:

- PubMed/Medline (from inception)
- Centre for Reviews and Dissemination
- EQUATOR network
- HTA agencies and decisionmaking body websites

❖ Inclusion:

- ✓ Guidance on performing/reporting comparative economic evaluations of healthcare interventions
- ✓ Most recent version

Methods

- ❖ Guidelines were categorized as:
 - Jurisdictional mandatory,
 - Jurisdictional non-mandatory, or
 - General
- ❖ Data extracted into a template devised to capture 30 fields of content
- ❖ Data extraction verified by a second investigator
- ❖ Qualitative and quantitative content analyses

Results – Guidelines identified...

- ❖ **74 guidelines for HE evaluations identified:**
 - **23 jurisdictional mandatory,**
 - **11 jurisdictional non-mandatory, and**
 - **40 general**

Results – Guidelines identified...

Jurisdictional guidelines covered:

Austria, Australia, Baltic countries (Estonia, Latvia & Lithuania), Belgium, Canada (Ontario), Canada, Finland, France, Germany, Hungary, Ireland, Israel, Italy, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Russia, Spain, Sweden, Switzerland, UK (England & Wales), UK (Scotland), USA (Managed Care)

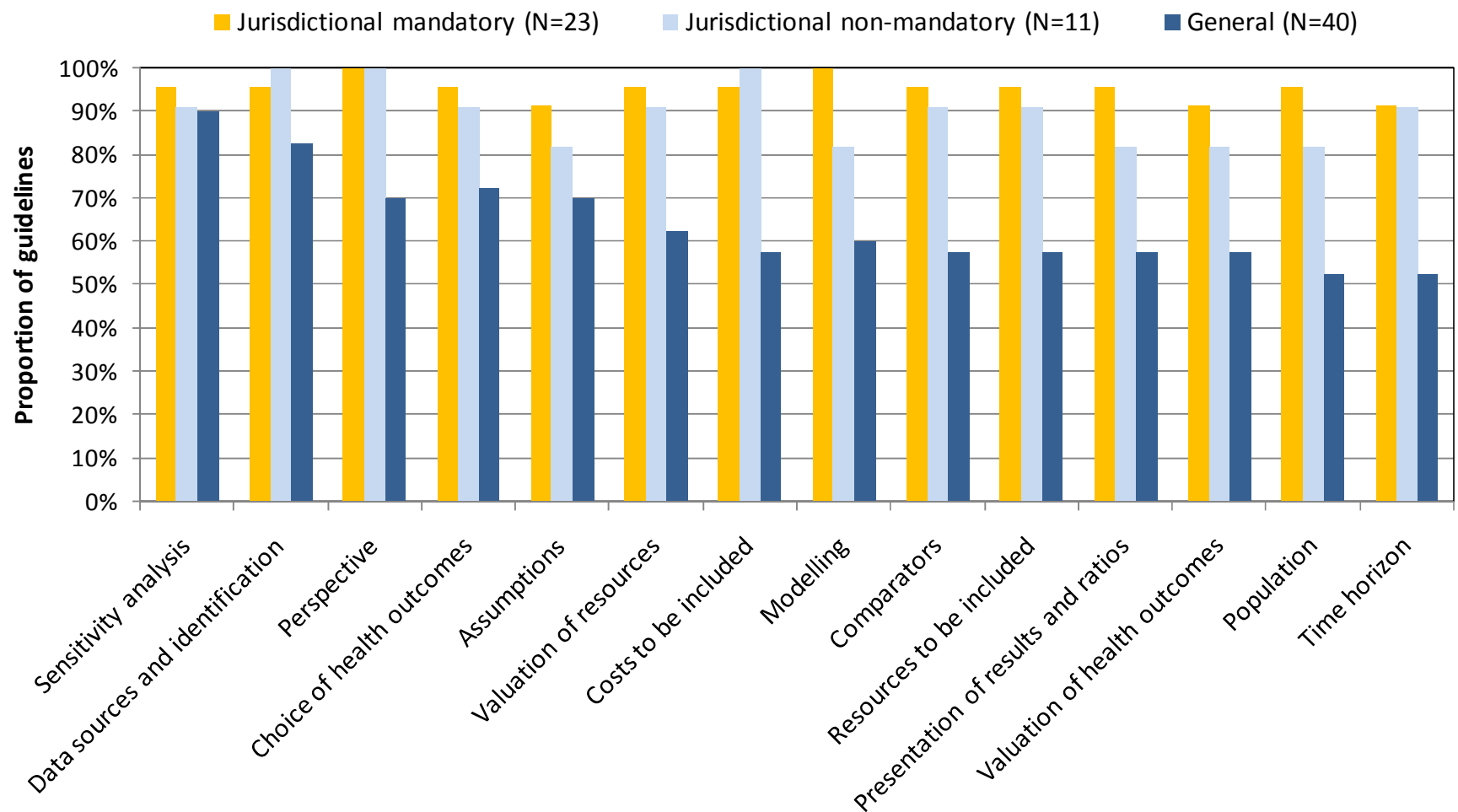
General guidelines developed by:

ISPOR, WHO, industry, academia (e.g., universities of York, Sheffield), consensus working groups

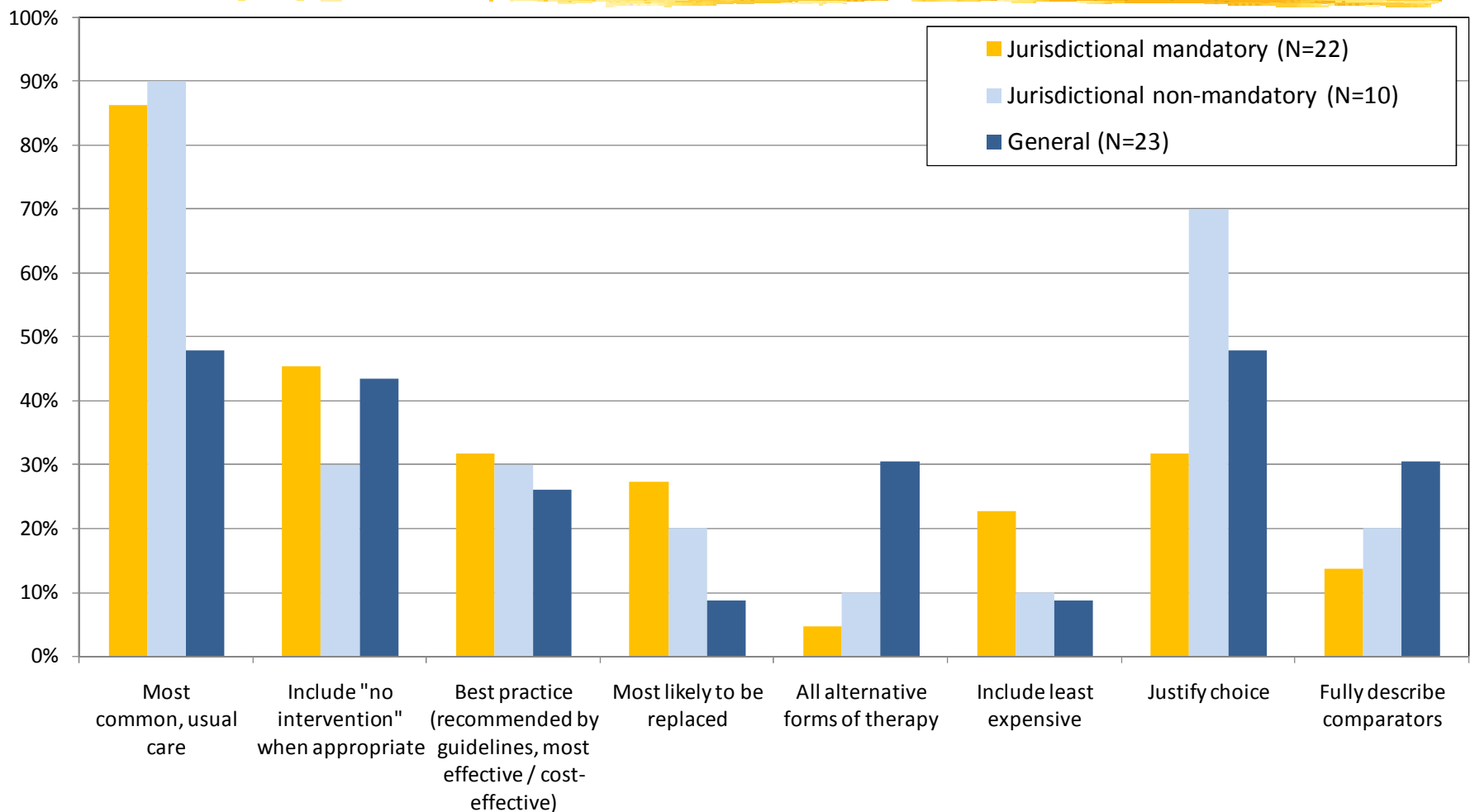
Results – Guidelines identified

- ❖ **British Medical Journal (BMJ) checklist**
 - Drummond and Jefferson, 1996
- ❖ **Recommendations of the Panel on Cost-Effectiveness in Health and Medicine**
 - Russell et al., 1996; Weinstein et al., 1996; Siegel et al., 1996; Siegel et al., 1997
- ❖ **Quality of Health Economic Studies (QHES)**
 - Chiou et al., 2003
- ❖ **Consensus on Health Economic Criteria (CHEC)**
 - Evers et al., 2005

Range of Issues Mentioned



Major Areas of Agreement: Comparators



Other Major Areas of Agreement...

❖ Assumptions (N=58)

- State and justify all assumptions: 97%

❖ Time horizon (N=52)

- Long enough to capture all relevant differences: 56%
- Depending on disease and intervention: 27%; lifelong for chronic diseases & acute diseases with lifelong sequelae: 25%
- State time horizon: 25%

❖ Choice of health outcomes (N=61)

- QALYs: 43%; life-years: 23%
- Direct, final rather than surrogate, intermediate: 33%
- Effectiveness rather than efficacy: 23%

Other Major Areas of Agreement

❖ Type of analysis (N=50)

- Cost-utility: 74%; cost-effectiveness: 60%; cost-minimization: 42%; cost-benefit: 26%

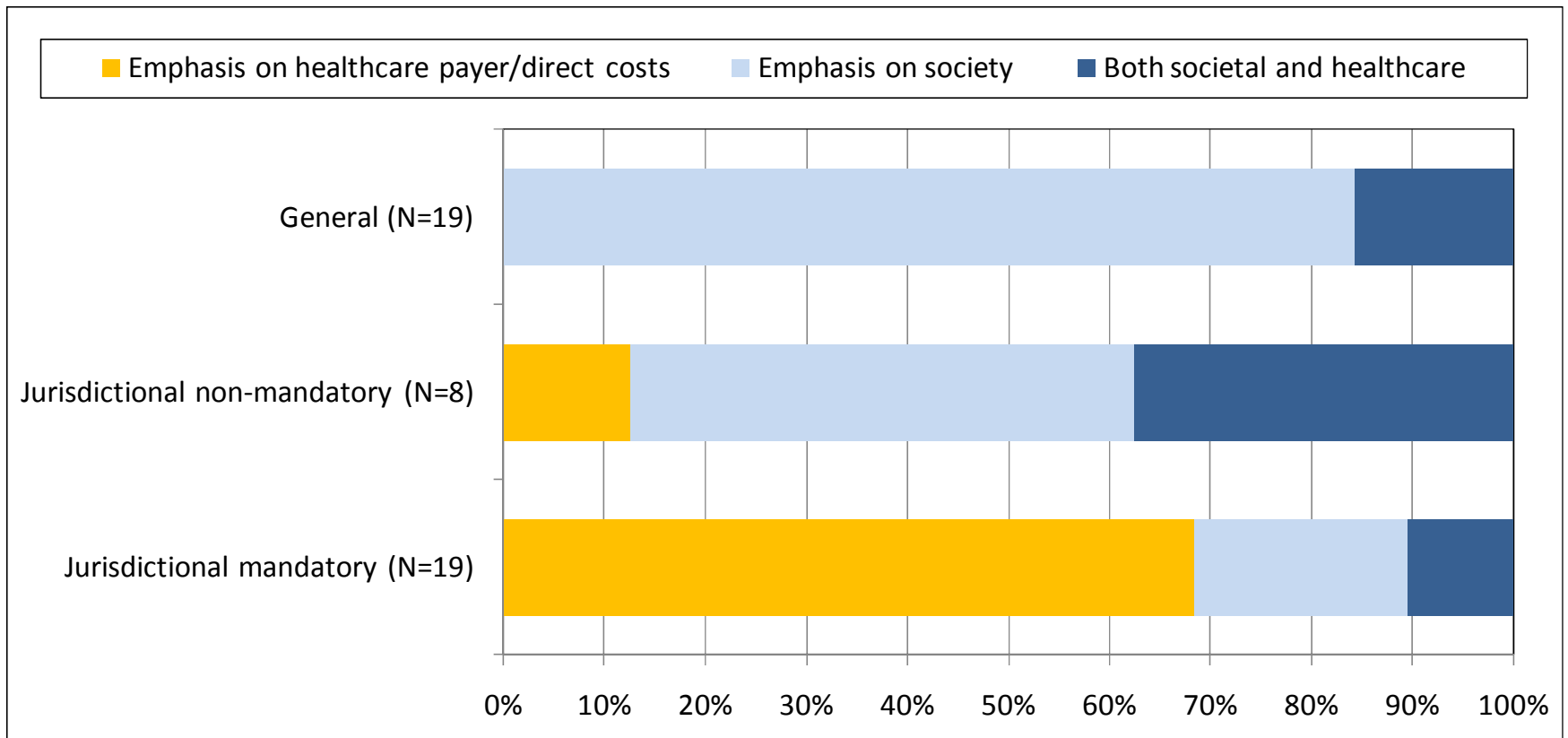
❖ Presentation of results (N=54)

- Present incremental ratios (e.g., ICERs): 78%; present disaggregated results (costs & outcomes): 34%

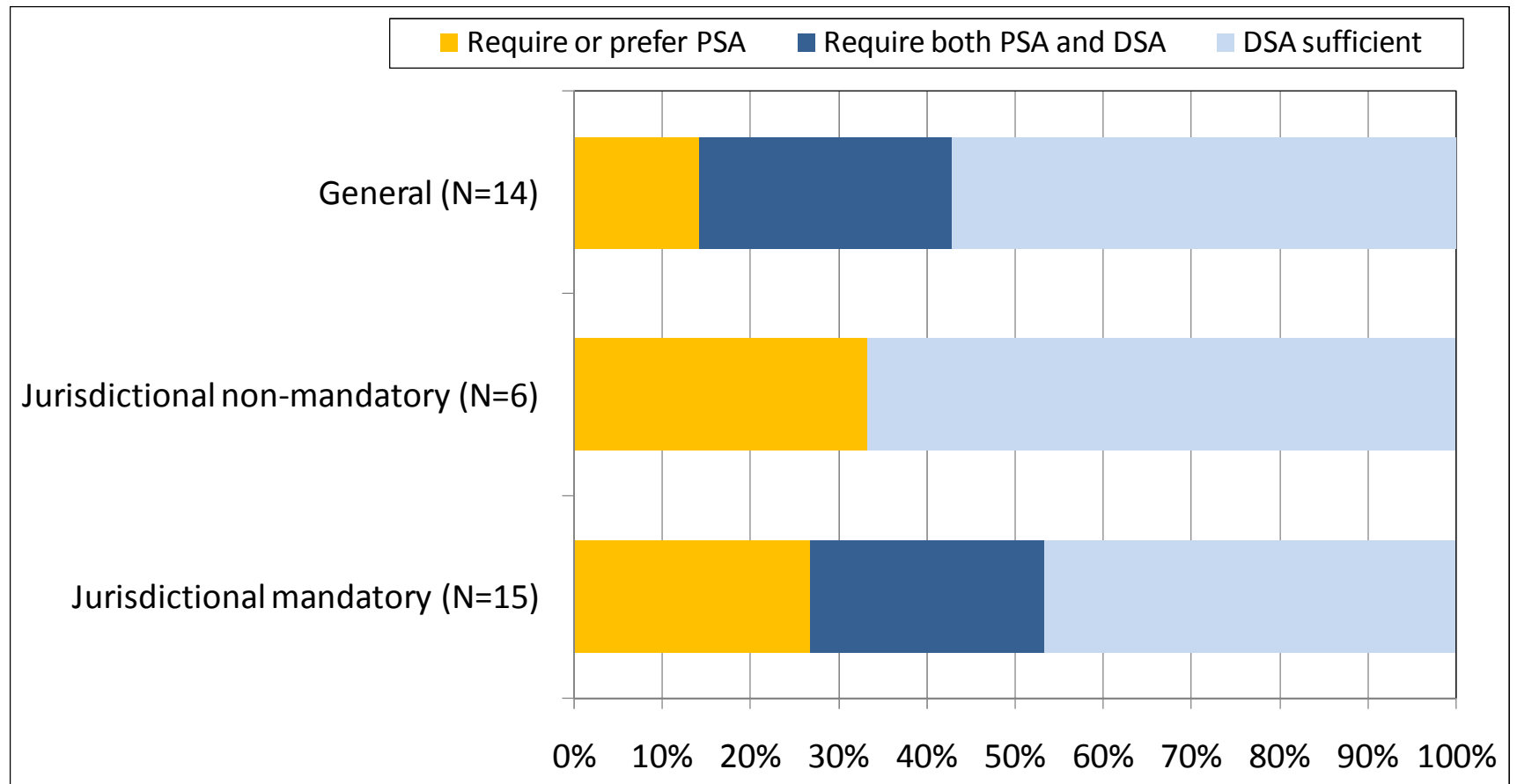
❖ Resources and costs (N=57)

- Report resource consumption in natural units: 55%; report unit costs: 57%

Areas of Disagreement: Perspective



Areas of Disagreement: Type of Sensitivity Analysis



Other Areas of Disagreement

- ❖ **Unrelated costs in life-years gained (N=11)**
 - Inclusion in base-case or sensitivity analysis: 54%;
exclusion: 46%

- ❖ **Methods to value productivity losses (N=16)**
 - Friction cost approach: 31%;
human capital approach: 50%;
both recommended: 20%; other: 6%

Conclusions

- ❖ **Guidelines vary in scope; general guidelines tend to focus on a narrower range of issues**
- ❖ **Agreement with respect to many issues**
- ❖ **Variance on some methodological points**
 - **Room for differences and evolution in methodological approaches**
- ❖ **Review is the basis for looking at approaches to improving the quality of HE studies and their reporting**

Next Steps...

- ❖ We are interested in your opinion, as a stakeholder in HE research, on how to improve the quality of HE reporting

Please complete the survey at:

<http://www.biomedcom.org/HE-reporting>