**Example Extraction Spreadsheet Analytical Hierarchy Process (AHP)**

Note on filling out the extraction sheet: Folders in bold print have to be filled out. Assistance for filling out the sheet is offered in italics.

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| **Extraction sheet – Analytic Hierarchy Process (AHP)** |
| **Generic** |
| **Extracting reviewer:** |  |
| **Title:** |  |
| **Author(s)/Year of** **publication:** |  |
| **Location:** |  |
| **Objectives of study:** |  |
| **Perspective:** | **Patient** | **General population** | **Professionals** | **Proxies** |
| **Description of sample:** | *In case of patients or proxies: type of diabetes, stage of disease, Age, Gender, Duration of disease, actual treatment, Diabetes complications, etc.**In case of professionals: Specialty, In- or Out-patient care, etc.* |
| **Sample size:** |  |
| **Subgroup analysis:** | **Yes/No** | **If yes, for which subgroups?** |
| **Specific for AHP** |
| **Generation of criteria for AHP:** | *Systematic Review, Survey of experts, Focus groups, Patient interviews, Clinical guidelines, Combination, Other, not reported* |
| **Number of hierarchical levels:** |  |
| **What is the over-arching target/decision problem? (highest hierarchical level)** | *Comparative treatment, Intervention, drug from the perspective of…* |
| **Which alternatives are available? (lowest hierarchical level)** | Intervention A, B, C… |
| **Number of of included criteria and sub-criteria:** |  |
| **Used criteria/****sub-criteria:** | **WTP/costs:** state attribute(s)**Risk:****Time requirement:****Health status/Disease characteristics:****Interventions/Characteristics of technologies:****Social aspects:****Medical care:****Other:** |
| **Choice of levels/ attribute values/ criteria and sub-criteria and their range:** | *Systematic Review, Survey of experts, Focus groups, Patient interviews, Clinical guidelines, Combination, Other, not reported* |
| **Number of** **levels/ attribute values/ criteria and sub-criteria per each cluster** | Ideally between 3 and 5 *(Hummel et al., 2014)* |
| **Number of pairwise comparisons** | x-times, not reported |
| **Which rating scale was used?** | *9 points AHP scale, linear scale, geometric scale, logarithmic scale, continuous graphic mode, other* |
| **Were verbal preferences assigned to scale values?** | *Yes/No* |
| **Were correlations/ co-linearities or confounding between attributes/ criteria / sub-criteria considered or discussed?** | *Yes/No**If yes, state the respective information* |
| **Modes of experiment implementation:** | *Group decisions (consensus or aggregating individual decisions)**or**directly (in case of high number of alternatives) with qualitative or quantitative intensity scales* |
| **Order of valuation:** | *Bottom-up (first value priorities of alternatives and then criteria weights)**or**Top-down (first estimate criteria weights and then value priorities of alternatives)* |
| **Validity** |
| **Validity checks:** | *External, internal (theoretical, Non-satiation, Transitivity, Sen’s expansion and contraction, compensatory decision making), other, not reported* |
| **Calculation of criteria weights or Eigenvector:** | *Eigenvector method, Goal Programming, Logarithmic Least Squares Method (LLSM), Least Square technique, additive normalization, fuzzy preference programming methods, other* |
| **Aggregation of group decision(s):** | *Geometric mean, arithmetic mean, other* |
| **Consistency check:** | *Consistency ratio >0.1, >0.2, not reported**In case of exceeding CR:**Restructuring of hierarchy, repeated survey asking to revise comparisons, exclusion of inconsistent cases, other* |
| **Typology of inconsistencies:** | **Clerical error:***Patients who erroneously answer the inverse of what they intend to say – crossing the value on the wrong side of the scale***Use of extreme values:***Patients use extreme values to support the direction of their preference. However, extreme values should only be used to express an extreme strength of preference, not a preference in general.***Related to model structure, criteria/sub-criteria definition:***Criteria/sub-criteria in AHP are to be structured in a way that criteria in a cluster at one level are comparable within an order of magnitude.* *However, for practical reasons (number of comparisons), this might not always be entirely feasible.***Lack of information or understanding or lack of concentration/interest:***If patients are not really interested in the questionnaire or do not understand the criteria asked about they tend to give random answers, which often leads to high inconsistencies.***Inconsistency:***Truly intransitive answers, i.e. if a patients values A higher than B and B higher than C, but then C higher than A* |
| **Is a sensitivity analysis implemented?** | *Yes/No, not reported**With regard to the valuations or the prioritized criteria**Rank reversal occurred? Yes/no**If yes, which approaches were used to avoid rank reversal (B-G modified AHP, Suppermatrix approach, referenced AHP, “Normalization to minimum entry”, Multiplicative AHP, Change from distributive mode to ideal ode, other)?* |
| **Further estimation of uncertainty:** | *Further efforts to check for certainty or robustness of results* |
| **Software used:** | *Team Expert Chioce, Decision Lens, HIPIRE 3+, Super Decisions, SelsectPro Decision Support Software, EasyMind, MakeItRational, TransparentChioce, MindDecider Team, other, not reported* |
| **Use of qualitative methods/Pilots:** | *Yes/No**If yes, for:**Generation of criteria/sub-criteria, levels/values/pilots/pre-test of experiment, explanation/feedback with participants for the choice of alternatives/criteria* |
| **Was a definite interpretation of criteria and used scales ensured?** | *Yes/No, not reported* |
| **“Response efficiency”** | *Were potential measurement errors reported or discussed? Are they to be expected due to:** *too many pairwise comparisons; fatigue*
* *unclear definitions, heterogeneous interpretations, no guarantee for a definite understanding*
* *cognitive limitations of the study population*

*How was dealt with measurement errors?** *Overlapping of attribute values in pairwise comparisons*
* *other*
 |
| **Results** |
| **Main results of the AHP experiment:** | *Results for the AHP preference elicitation reported by the authors of the study* |
| **Conclusions/Hypotheses:** | *Which are the essential discussion points and conclusions – pls. present them divided in clinical/content-relevant and methodical aspects.* |
| **Limitations and Transferability of results:** |  |
| **Miscellaneous:**  | *All relevant/interesting information not covered or captured by the extraction sheet* |