World Health Organization
REGIONAL OFFICE FOR THE Eastern Mediterranean

Introduction to use of Evidence to Decision frameworks

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2ND TECHNICAL WORKSHOP ON

NATIONAL PROGRAMME FOR GUIDELINE DEVELOPMENT AND ADAPTATION IN EGYPT

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Overview

- Use of Evidence to Decision frameworks in guideline development

Defining EtD framework

- The Evidence to Decision (EtD) frameworks and tables are aimed to make support systematic decision making for clinical and public health interventions
- They support systematic and transparent use of evidence in decision making
- The help stakeholders of different background to have adequate information that justified the decisions

Construction of a typical EtD table (Rosenbaum et al, 2018)

- **Question**: The Population, Intervention, Comparison, and Main outcomes (PICO) that the recommendation will address as well as Setting, Perspective, Subgroups, and Background.
- **Criteria**: Factors that affect the decision. For each criterion, provide:
  - (1)**Judgment**—the option chosen by the panel that reflects their judgment with regards to the specific criterion;
  - (2)**Research evidence**—evidence that is collected in a preplanned and rigorous fashion to inform a judgment, e.g., evidence from systematic reviews;
  - (3)**Additional considerations**—other information and considerations to inform or justify each judgment, e.g., practical experience.
- **Conclusion**: This includes the summary of judgments, strength of recommendation, recommendation text, justification, implementation considerations, monitoring and evaluation, and research needs.

Example structure

(DECIDE, 2011)

CRITERIA	JUDGEMENT					EVIDENCE
Is the problem serious?	*No* ☐	*Probably not* ☐	*Uncertain* ☐	*Probably* ☐	*Yes* ☐	[Text]
Are a large number of people affected?	*No* ☐	*Probably not* ☐	*Uncertain* ☐	*Probably* ☐	*Yes* ☐	[Text]
Can we be confident in the estimates of effect?	*No* ☐	*Probably not* ☐	*Uncertain* ☐	*Probably* ☐	*Yes* ☐	[Text]
Are the desirable effects large?	*No* ☐	*Probably not* ☐	*Uncertain* ☐	*Probably* ☐	*Yes* ☐	**Outcome (1-12 months)** / **[Status quo] Baseline risk per 1000** / **[Option 1]: Risk difference per 1000** / **Quality of evidence (GRADE)** *Outcome 1* / [x] / [x] fewer/more / ⊕⊕⊖⊖ Low *Outcome 2* / [x] / [x] fewer/more / ⊕⊕⊕⊖ Moderate *Outcome 3* / - / - / No studies
Are the undesirable effects small?	*No* ☐	*Probably not* ☐	*Uncertain* ☐	*Probably* ☐	*Yes* ☐	[Text]
Are the resources required relatively small?	*No* ☐	*Probably not* ☐	*Uncertain* ☐	*Probably* ☐	*Yes* ☐	[Text]
Is the cost small relative to the net benefits?	*No* ☐	*Probably not* ☐	*Uncertain* ☐	*Probably* ☐	*Yes* ☐	[Text]
What would be the impact on health inequalities?	*Increased* ☐	*Probably increased* ☐	*Little or uncertain* ☐	*Probably reduced* ☐	*Reduced* ☐	[Text]
Is the option feasible to implement?	*No* ☐	*Probably not* ☐	*Uncertain* ☐	*Probably* ☐	*Yes* ☐	[Text]
Is the option acceptable to key stakeholders?	*No* ☐	*Probably not* ☐	*Uncertain* ☐	*Probably* ☐	*Yes* ☐	[Text]

Criteria use for decision making (Rosenbaum et al, 2018)

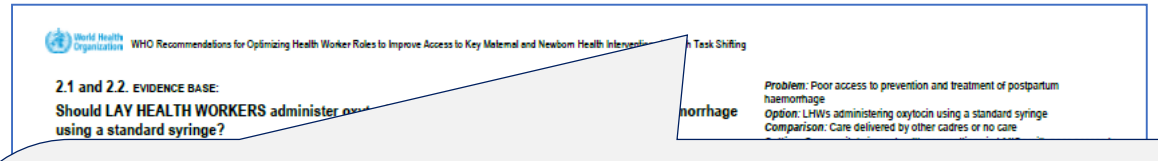
- **Problem** – Is the problem a priority?
- **Desirable effects** – How substantial are the desirable anticipated effects?
- **Undesirable effects** – How substantial are the undesirable anticipated effects?
- **Certainty of the evidence of effects** – What is the overall certainty of the evidence of effects?
- **Values** – Is there important uncertainty about or variability in how much people value the main outcomes?
- **Balance of effects** – Does the balance between desirable and undesirable effects favor the option or the comparison (taking the effects, certainty of the evidence, and values into consideration)?
- **Resources required** – How large are the resource requirements (costs)?
- **Certainty of evidence of required resources** – What is the certainty of the evidence of resource requirements (costs)?
- **Cost-effectiveness** – Does the cost-effectiveness of the option favor the option or the comparison?
- **Equity** – What would be the impact on health equity?
- **Acceptability** – Is the option acceptable to key stakeholders?
- **Feasibility** – Is the option feasible to implement?

Example: Should community health workers deliver effective maternal and child health (MCH) interventions in Uganda? (DECIDE, 2011)

CRITERIA	JUDGEMENT					EVIDENCE
Is the problem serious?	*No* ☐	*Probably not* ☐	*Uncertain* ☐	*Probably* ☐	*Yes* ☑	Slow progress towards MDGs 4 and 5 (child and maternal mortality)
Are a large number of people affected?	*No* ☐	*Probably not* ☐	*Uncertain* ☐	*Probably* ☐	*Yes* ☑	- Under 5 mortality rate 140 per 1000 live births - Infant mortality rate 82 per 1000 live births - Maternal mortality ratio 440 per 100,000 live births
Can we be confident in the estimates of effect?	*No* ☐	*Probably not* ☑	*Uncertain* ☐	*Probably* ☐	*Yes* ☐	The true effect may be substantially different from the estimate of the effect.
Are the desirable effects large?	*No* ☐	*Probably not* ☐	*Uncertain* ☐	*Probably* ☑	*Yes* ☐	**Outcome (1-12 months)** / **Without CHW: Baseline risk per 1000** / **With CHW: Risk difference per 1000** / **Quality of evidence (GRADE)** *Under 5 mortality* — 140 — 35 fewer — ⨁⨁◯◯ Low *Infant mortality* — 82 — 20 fewer — ⨁⨁◯◯ Low *Maternal mortality* — - — - — No studies - CHWs probably increase immunization coverage and breast feeding - CHWs may increase care seeking behaviour and morbidity (e.g. fever, diarrhoea) for children under 5
Are the undesirable effects small?	*No* ☐	*Probably not* ☐	*Uncertain* ☑	*Probably* ☐	*Yes* ☐	- No studies (trials compare CHW with no intervention) - Might be inappropriate diagnosis, delayed referral, inappropriate treatment, misuse; although there is no evidence of this

- Example from WHO guidelines: External reference pricing

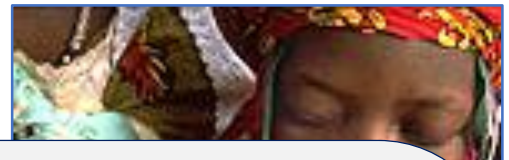
Example from WHO guidelines: Should lay health workers provide oxytocin to women with postpartum haemorrhage?


WHO Recommendations for Optimizing Health Worker Roles to Improve Access to Key Maternal and Newborn Health Interventi… Task Shifting

2.1 and 2.2. EVIDENCE BASE:

Should LAY HEALTH WORKERS administer oxy… norrhage using a standard syringe?

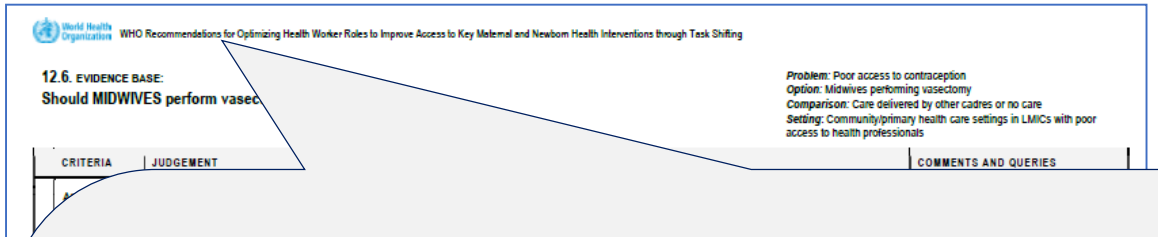
Problem: Poor access to prevention and treatment of postpartum haemorrhage
Option: LHWs administering oxytocin using a standard syringe
Comparison: Care delivered by other cadres or no care



- No direct evidence of benefits or harms
- Requires additional training, supervision, access to supplies and well-functioning referral system, but these systems are often weak
- LHWs and health professionals confident in LHW skills
- But LHWs concerned about social blame if something goes wrong
- Requirement that LHW is present during labour and birth leads to unpredictable working conditions, with implications for LHW incentives
- LHWs reluctant to visit homes at night because of safety concerns
- Conditional recommendation (in the context of rigorous research)
- More research regarding effectiveness and acceptability called for

GRADE CERQual

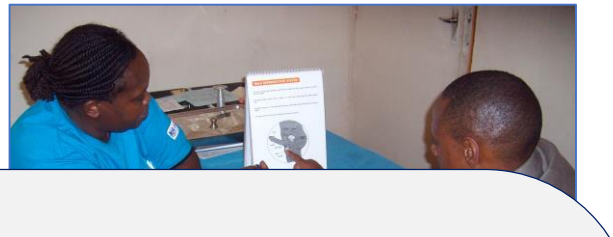
Example from WHO guidelines: Should midwives perform vasectomy?


WHO Recommendations for Optimizing Health Worker Roles to Improve Access to Key Maternal and Newborn Health Interventions through Task Shifting

12.6. EVIDENCE BASE:
Should MIDWIVES perform vasec

Problem: Poor access to contraception
Option: Midwives performing vasectomy
Comparison: Care delivered by other cadres or no care
Setting: Community/primary health care settings in LMICs with poor access to health professionals

CRITERIA | JUDGEMENT | COMMENTS AND QUERIES

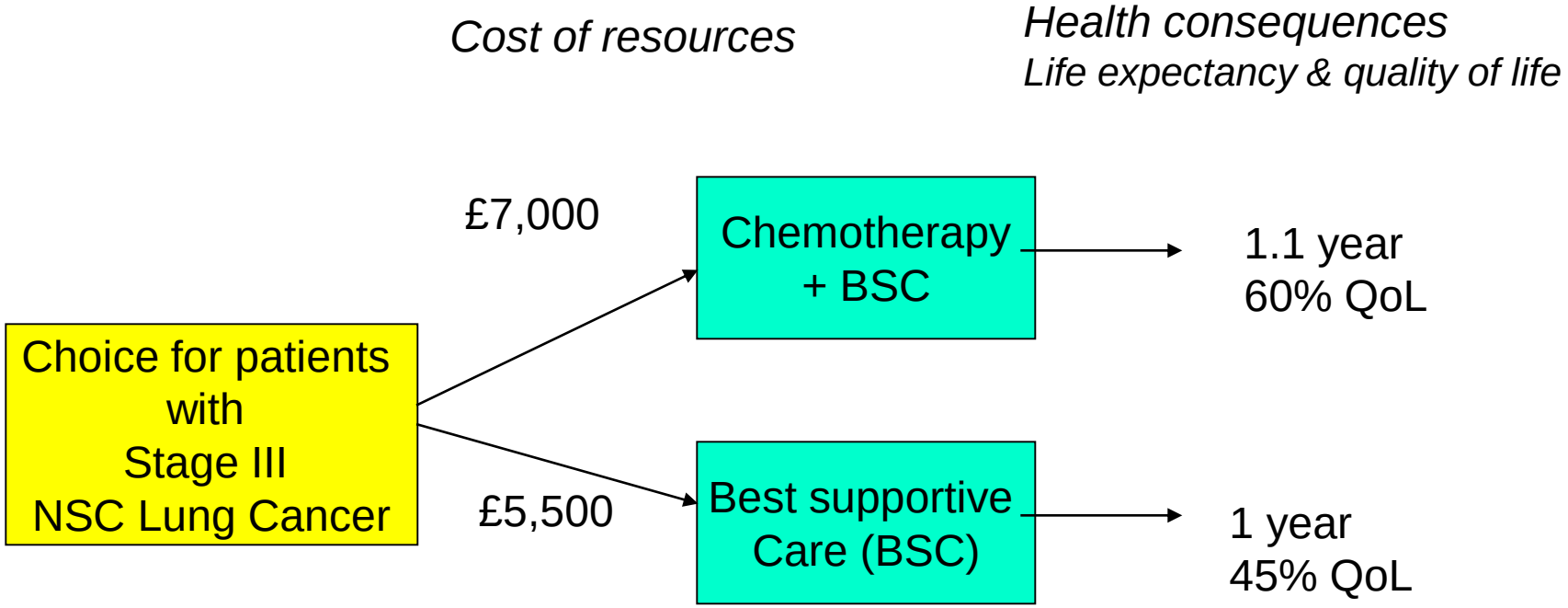


- No direct evidence of benefits or harms, but indirect evidence that midwives can perform tubal ligation
- Requires additional training and supervision, but additional training and supervision often insufficient in midwife taskshifting programmes
- Midwives often motivated by being “upskilled” – could lead to increased status and job satisfaction and promotion opportunities
- Midwives sometimes resistant to tasks beyond obstetric care
- Turf battles because of lack of role clarity between midwives and other cadres
- Conditional recommendation (in the context of rigorous research)
- Research on effectiveness and acceptability called for

GRADE CERQual

Any further questions?

Use of economic evaluation evidence in a guideline recommendation (example decision tree from a NICE guideline)



- Chemotherapy vs BSC
  - Life-years gained=1.1-1=0.1
  - Quality-adjusted life-years (QALYs) gained=(1.1*0.6)-(1*0.45)=**0.21**
  - Incremental cost=£7,000-£5,500= **£1,500**
  - Incremental cost per QALY gained=£1,500/0.21= **£7,143**

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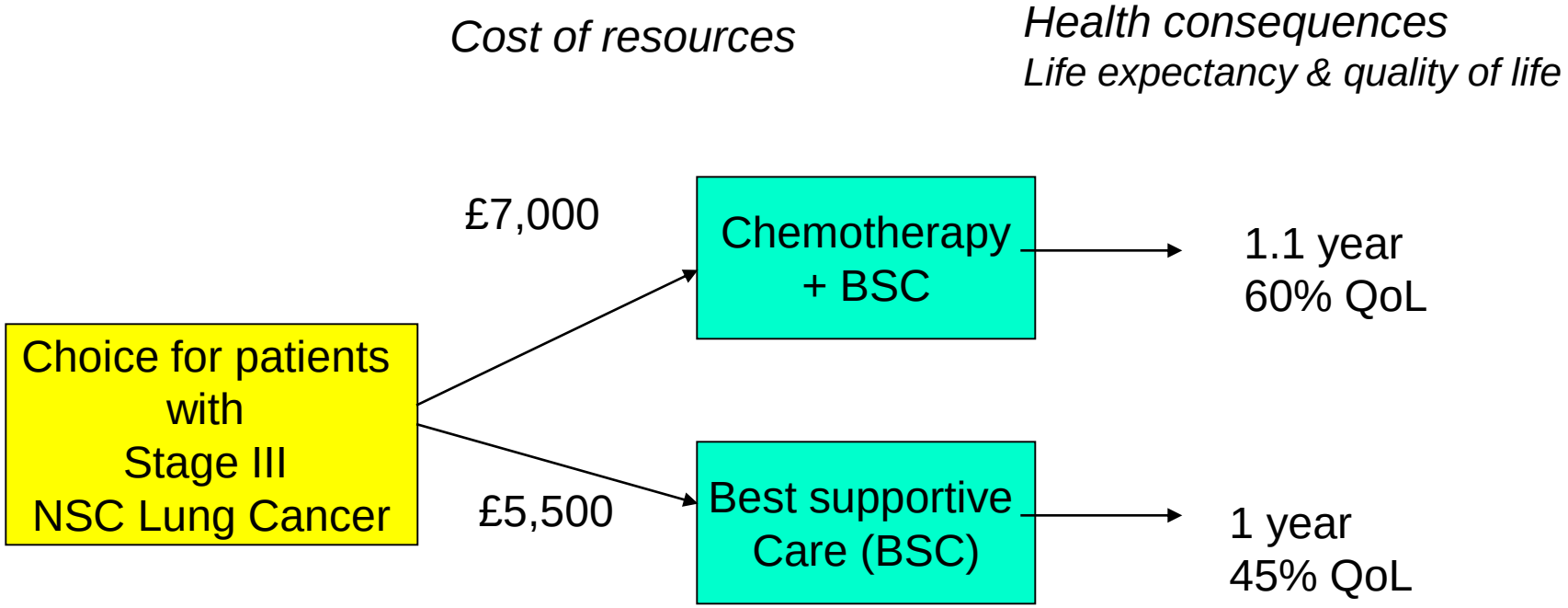

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