STEPP: Supporting Translation of Evidence into Policy and Practice

Young T, Olivier L, Arens FJ, Oliver J, Cloete K, Volmink J

Session: Policy makers as evidence-based decision makers
Cochrane Colloquium 2005

Presentation format

- Introduction
- Process
- Progress
- Strengths and challenges
- Conclusion

Evidence-based practice

…the conscientious, explicit and judicious use of current best evidence in making health care decisions

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Health care policy and practice context

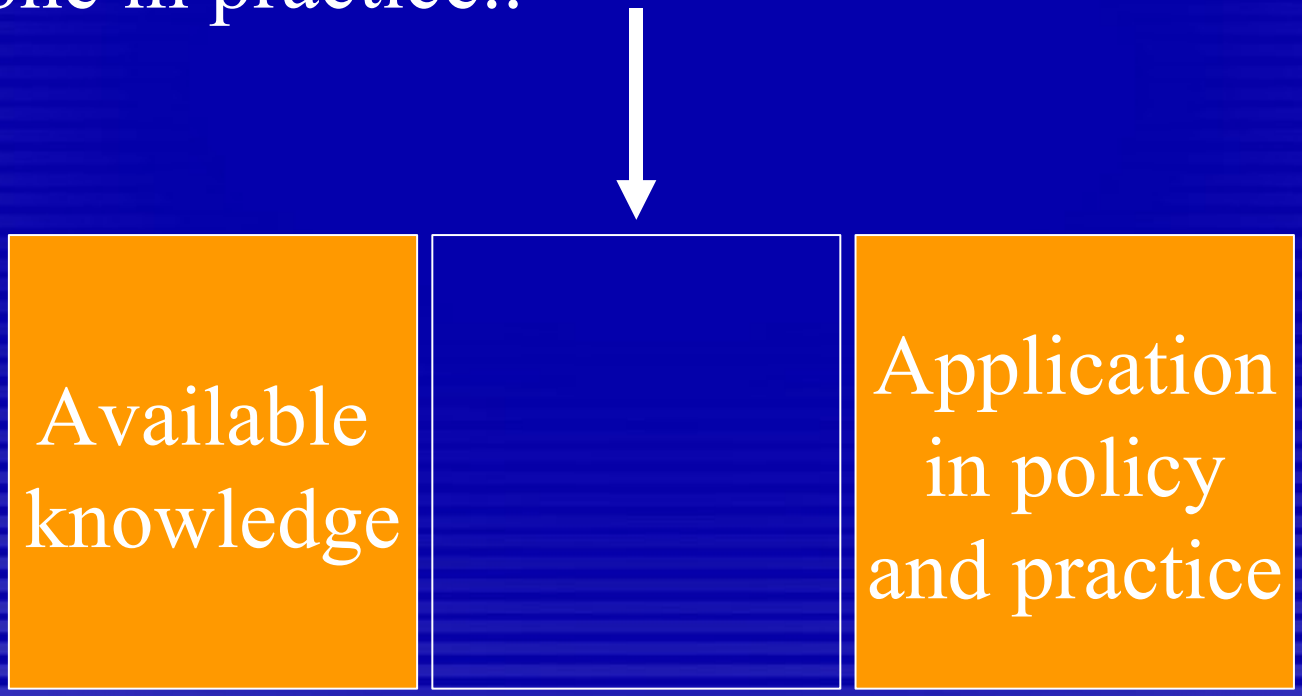
- Evidence is necessary but not sufficient
- Burden of disease
- Resource constraints
- Level of care
- Preferences

Policy formulation

- Complex
- What do policymakers need to know?
  - What works?
  - Under which conditions?
  - Applicable locally (feasibility, acceptability and cost)

‘Know-do gap’

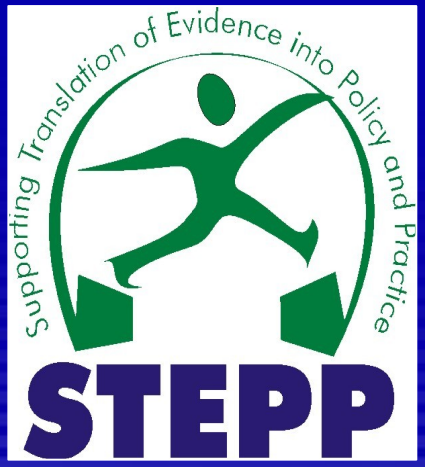
- Gap between what is known and what is done in practice..



Aim

To bridge the gaps between research evidence, policy and real world practice

Available knowledge



Application in policy and practice


Determine question(s) to review
Search for evidence
Critically appraise & summarise evidence
Consultation
Feedback and assessment finalised
Disseminate and channel identified research questions

- Identified by policymakers
- Emerging or existing policy
- Agreed to by project team

- Search strategy
- *The Cochrane Library*
- Clinical Evidence
- Evidence-based Medicine
- Evidence-based Health Care
- MEDLINE

Critically appraise and summarise the evidence, incl. the source, covering benefits and harms

Consult with policymakers, clinicians and consumers

- local data on costs,
- feasibility,
- feedback on usefulness & how assessment can be improved

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STEPP is an initiative of the South African Cochrane Centre, Medical Research Council, South Africa. It aims to bridge the gaps between research evidence, policy and real world practice. Based on questions raised by policymakers STEPP reports summarize the best available evidence on benefits, harms, costs and feasibility of interventions

Emergency contraception: summary of the evidence

BACKGROUND

Emergency contraception is the use of a drug or device as an emergency measure to prevent pregnancy after unprotected intercourse.[1] Pregnancy prevention forms an important component of the management of rape victims along with psychological support, HIV and sexually transmitted disease prophylaxis. Currently, several interventions (hormonal contraception and intrauterine contraceptive devices) are available for emergency contraception.

QUESTION

What are the effects of the various emergency contraceptive regimens?

BEST AVAILABLE EVIDENCE

Benefits:

A Cochrane review (Table 1) found that levonorgestrel (two 750µg doses 12 hours apart) is more effective than the Yuzpe regimen (100 micrograms ethinyloestradiol, 500 micrograms levonorgestrel) in preventing pregnancy.[1] Both regimens are more effective if commenced within 24 hours of unprotected intercourse. There is no evidence that the effect of a single dose of 1.5 mg levonorgestrel is different to that of a split-dose regiment (0.75 mg 12 hours apart) or that levonorgestrel produces different outcomes compared to mid-dose, or low-dose mifepristone.[1,2] The Cochrane review also showed that mifepristone is more effective than the Yuzpe regimen.

Support for the use of the intrauterine contraceptive device (IUCD), within 120 hours of unprotected intercourse, comes from a published case series that included 879 IUCD insertions after intercourse resulting in only one pregnancy.[3] One randomized controlled trial comparing the use of two different copper IUCDs among 192 women requesting emergency contraception found no pregnancies at 6 weeks follow-up (and no cases of pelvic inflammatory disease).[3] A further advantage of the IUCD is the provision of ongoing contraception.[3]

Table 1. Pregnancy prevention: Cochrane Review [1]

Comparison	No. of trials	No. of participants	RR (95%CI)
Levonorgestrel vs Yuzpe	2	2789	0.51 (0.31-0.83)
Single vs double dose Levonorgestrel	2	3830	0.77 (0.45-1.30)
Levonorgestrel vs mid-dose (25-50 mg) Mifepristone	8	2292	1.64 (0.82-3.25)
Levonorgestrel vs low-dose (=< 10 mg) Mifepristone	7	6118	1.38 (0.93-2.05)
Mifepristone (all doses) vs Yuzpe	3	2144	0.14 (0.05-0.41)

Harms:

The Cochrane review found that levonorgestrel compared to Yuzpe led to fewer episodes of nausea, vomiting, dizziness and fatigue (Table 2).[1] There were no differences in the timing of the next menstrual period. Single dose levonorgestrel seems to cause more cases of headache than the split dose regimen. Compared to mifepristone levonorgestrel causes less delay in menses and more frequent bleeding in the first seven days but mifepristone results in less nausea, vomiting, headache, dizziness, and fatigue than the Yuzpe regimen. However, delay in menses is more frequently reported by women receiving mifepristone than those receiving the Yuzpe regimen.

Table 2. Side effects - RR (95%CI) – Cochrane review [1]

	Levonorgestrel vs Yuzpe	Single vs double dose Levonorgestrel	Mifepristone (all doses) vs Yuzpe
Nausea	0.43 (0.39- 0.48)	*NS*	0.63 (0.53- 0.76)
Vomiting	0.24 (0.18- 0.31)	*NS*	0.12 (0.07-0.20)
Fatigue	0.61 (0.54-0.70)	*NS*	0.81 (0.68-0.95)
Dizziness	0.72 (0.61-0.85)	*NS*	0.58 (0.42-0.80)
Headache	0.83 (0.69-1.00)	1.23 (1.04-1.47)	0.75 (0.61- 0.91)

NS = not significant

Costs:

EC (ECPs, minipills and IUCD) has been shown to be cost-effective.[4]

Feasibility:

Levonorgestrel, Yuzpe and IUCD are freely available at public health facilities in the Western Cape. Availability is restricted to working hours.[5] IUCD insertions require specific competencies. The general public's level of knowledge of EC is low, and acceptability varies. However, findings from a descriptive study indicate that if women know of EC, where to get it, and how soon to take it, they would access it if needed.[5]

RECOMMENDATIONS

Hormonal emergency contraception should preferably be started within the first 24 hours after unprotected intercourse. Levonorgestrel 1.5 mg (two split doses or a single dose) or low and mid-doses (25-50 mg) mifepristone is the treatment of choice. Yuzpe can be offered as an alternative if the former is not available. IUCD can be used up to 120h after unprotected intercourse and can be used for ongoing contraception.

References

1. Cheng L, Gülmezoglu AM, Ezcurra E, Van Look PFA. Interventions for emergency contraception (Cochrane Review). In: *The Cochrane Library*, Issue 3, 2004. Chichester, UK: John Wiley & Sons, Ltd. Date of most recent substantive amendment: 31 March 2004
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3. Westhoff C. Emergency Contraception. *N Engl J Med* 2003;349:1830-5
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Acknowledgements to M Adamo, K Day, M Gulmezoglu, J Hofmeyr, L Martin, and K Moss for their valuable feedback.

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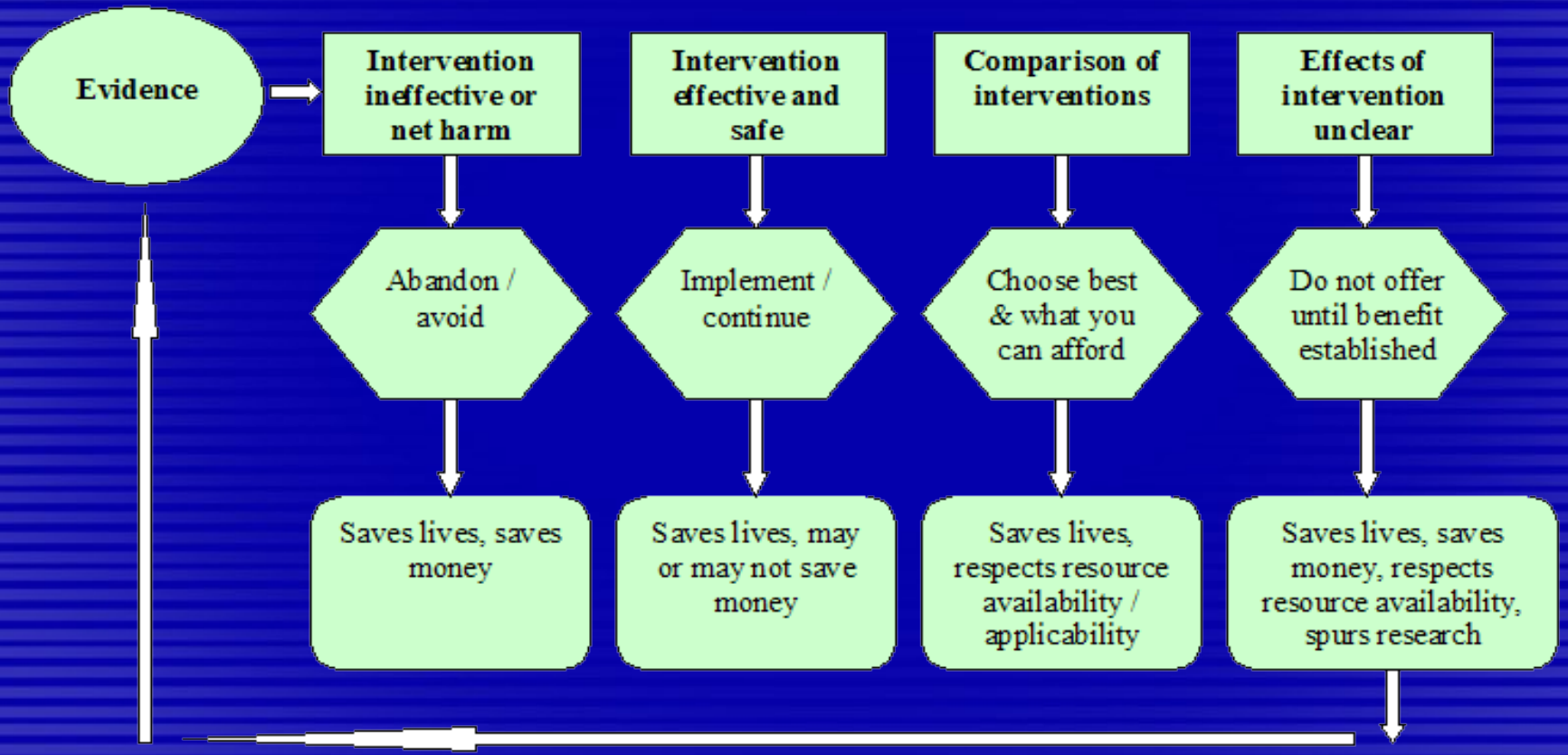
- Policy specific assessment
- Re-worked assessment
- Evidence synthesis often highlights gaps and identify research questions

Opportunities for getting evidence from paper to policy and practice



Volmink, Murphy & Woldehanna, Global Health Council, 2002

Conducting assessments

- Responsibilities
- Competencies
- Learning gains

Completed assessment

- What are the effects of various emergency contraceptive regimens?
  - Found that current policy is not based on best available evidence and makes recommendations for amendment
  - Develop and refine process

- One policymaker responded, *"I think it is very useful .... I recommend that the Policy be revised to comply with the best evidence available."*

- A reproductive health clinician said, "... *it is very useful to have the ability to utilise a resource like this for Policy development, and it is important that a Policy document contains the best possible advice based on sound and scientific principles. I would recommend that the policy and management guidelines .... be amended as the STEPP assessment recommends."*

Ongoing assessments

- The effects of co-trimoxazole on morbidity and mortality in HIV positive individuals.
- What are the effects of micronutrients on morbidity and mortality in HIV positive individuals?
- In light of multi-drug resistance and adherence issues is providing INH prophylaxis a feasible public health approach?

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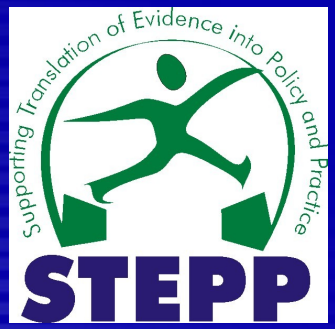
Strengths

- Engaging policymakers in process
- Relevance
- User-friendly
- Build capacity

Challenges

- Understanding the value of research synthesis
- ‘Buy-in’
- Staff to conduct assessments
- Funding

In conclusion

- STEPPing on toes
- In STEPP or out of STEPP?
- 

in the right direction!

Acknowledgements

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- Keith Cloete and Leana Olivier
- SACC staff
- Those we consulted for feedback

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