System change interventions for smoking cessation

- **Dennis Thomas**¹, Michael J Abramson², Billie Bonevski³, Johnson George²
- ¹University of New South Wales; ²Monash University; ³University of Newcastle
Background

• The consequences of smoking are well recognised\textsuperscript{1, 2}

• Health professionals can play a major role in helping smokers to quit

• Inadequate levels of support at healthcare systems\textsuperscript{3, 4}

• Missed opportunity

Many barriers limiting smoking care provision

– Lack of time
– Lack of training/skills and low confidence
– Lack of a system for identifying smokers
– Lack of organisational support

Better strategies are needed

A strategic system change approach could overcome the barriers

1 Wolfenden et al. *Drug and Alcohol Review* 2009
Background cont.

System change interventions

- Policies and practices designed by healthcare organisations to integrate tobacco control measures into the routine delivery of healthcare\(^1,\ 2\)
- Tobacco use systematically assessed and treated at every clinical encounter\(^1,\ 2\)
- All healthcare professionals in the system\(^2\)
- Interventions will be delivered by clinic staff\(^2\)
- Sustain beyond the research project

1. Agency for Healthcare Research and Quality 2012
Background cont.

- AHRQ suggests 6 system level approaches\(^1\)
  
  1. A system to identify smokers
  2. Training/resources/feedback
  3. Dedicated staff for smoking cessation treatment
  4. Promote organisational policies that support smoking cessation
  5. Tobacco dependence treatment
  6. Reimbursement to staff

1. Agency for Healthcare Research and Quality 2012
Cochrane review

[Intervention Review]

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Aim & Design

• **Aim**

To assess the effectiveness of system change interventions for smoking cessation within healthcare settings

• **Types of studies**

- RCTs, cluster RCTs, quasi RCTs and ITS

• **Databases**

  - CENTRAL
  - MEDLINE
  - EMBASE
  - PsycINFO
  - CINAHL
Method

Inclusion criteria

• Identify and treat all smokers accessing the system
• Include most health professionals in the system

Exclusion criteria

• Targeting single type of health professional
• Researchers involved in the intervention delivery
Outcome measures

• Primary outcome – Smoking cessation
• Secondary outcomes – Process outcomes

Risk of bias: Assessed using Cochrane standard criteria

Quality of evidence: Assessed using GRADE criteria

Data synthesis: Narrative synthesis
Results

Total no. of records identified: 9278

No. of titles screened: 7004

No. of abstracts screened: 1540

No. of full texts screened: 159

No. of studies included: 7

Duplicates: 2274

Excluded: 5464

Excluded: 1381

Excluded: 152
### Results cont.

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Results – Primary endpoint

Quality of evidence: very low
### Results - Secondary endpoints

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<th>Documentation of smoking status</th>
<th>Advice to quit</th>
<th>Counselling to quit</th>
<th>Initiation of NRT or other pharmacotherapy</th>
<th>Quitline referral</th>
<th>Quitline enrolment</th>
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- Not assessed; ND No difference; *** Favoured intervention
Discussion

• The evidence was equivocal for the cessation outcome
• Most of the process outcomes improved
• Two phase nature of the intervention
  – Directly promoting process outcomes
  – Indirect effect on cessation outcomes
• None of the studies included all the components
• The intensity and extent varied widely
• The quality of evidence: very low to low
• None included a hospital based intervention
Future directions

• A well-designed intervention should include all the components of the system change approach
• Include all the clinicians in the system
• Provide ongoing training and support
• Follow-up could further improve the outcomes
Discussion point

- Tackling resistance to health system change(s)?