

*Dissemination of cancer control
interventions*

What do we know?



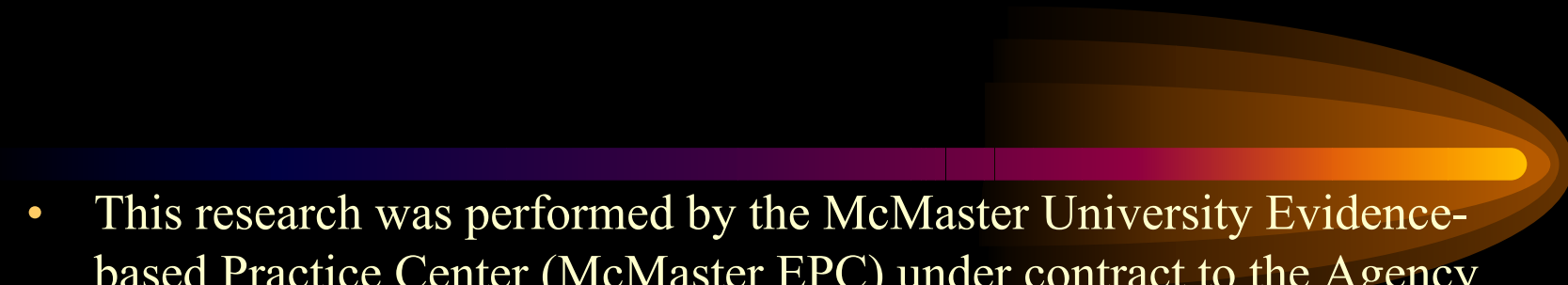
Peter Ellis

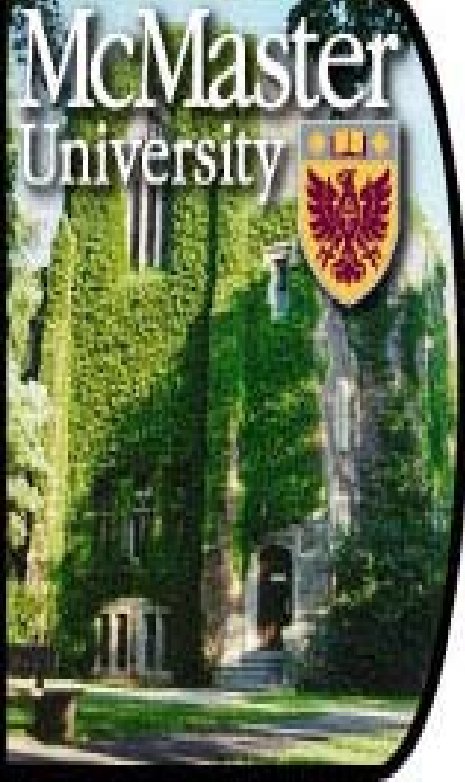
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 - The authors of this article are responsible for its contents, including any clinical or treatment recommendations. No statement in this article should be construed as an official position of AHRQ, NCI, or the U.S. Department of Health and Human Services
 - This presentation represents preliminary findings of the evidence report

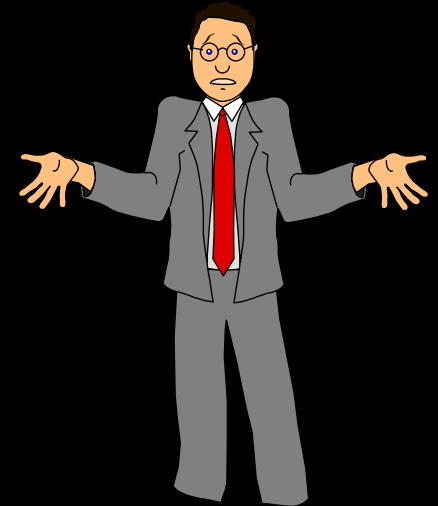


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What are we talking about?

- The process of transferring valid and reliable research findings into clinical practice
- Terms diffusion, dissemination, implementation and uptake are widely misused
- Disagreement among researchers
- Confusion in the literature



Dissemination

- The spread of knowledge from its source to health care practitioners. This includes any special efforts to ensure that practitioners acquire a working acquaintance of that knowledge (Lomas)
- Intervention Research & Dissemination Research - two tiers
 - Research to establish the effectiveness of interventions
 - Research on strategies to disseminate effective interventions

Review of cancer control interventions



- Systematic review of reviews
 - Multiple databases
 - Published after 1990
- Interventions to promote uptake of behavior change
- Five topic areas
 - Adult smoking cessation, adult healthy diet
 - Cervical screening, mammography
 - Control of cancer pain

Cancer control interventions

Intervention Category	Examples of Interventions Included
Media campaigns	Educational television segments, radio public service announcements
Healthcare provider-directed	Computerized and manual prompts/chart reminders, academic detailing/educational outreach, audit and feedback, opinion leaders
Individual (patient)-directed	Mailed invitations, letters from physicians, telephone counseling, generic or tailored education print materials or videos
Access enhancing	Mobile vans for decreasing geographical barriers to mammography screening or decreasing financial barriers by providing free mammograms
Social network	Peer-leaders, community organization techniques, church networks
Policy-level	Changing regulations for improved coverage of cancer screening activities
Multi-component (consists of two or more of the above interventions)	Combination of physician-directed prompts and patient-directed mailed invitations or reminders

Effective smoking cessation interventions

Data from 16 systematic reviews

- Brief advice by a healthcare professional
- office prompts
- telephone counseling
- individual counseling
- media campaigns
- Multi-component interventions including office reminders and physician education +/- patient education



Effective healthy diet interventions

Data from 7 systematic reviews

- Physician education
- Individual directed interventions such as education, counseling and healthcare provider advice
- Tailored or multiple interventions
- Media campaigns



Interventions to increase mammography

Data from 14 systematic reviews

- Invitations or reminders
- Office system interventions
- Financial barrier interventions
- Multicomponent interventions (combination of behavioral and cognitive)



Interventions to increase cervical cancer screening

Data from 8 systematic reviews

- Office systems (computer or manual chart reminders)
- Invitations or reminders to individuals



Interventions to improve control of cancer pain

Data from 1 systematic review

- Inadequate data regarding interventions to improve control of cancer pain
- Promising interventions include
 - transmission of patients' self reported pain scales to oncologists
 - nursing pain education
 - daily pain diaries





What research has been done to disseminate information about these cancer control interventions?



Review of dissemination strategies

- Systematic review of primary studies examining strategies to disseminate cancer control interventions
- Considered any study design
- Multiple databases
- Published after 1980
- Five topic areas
 - Adult smoking cessation, adult healthy diet
 - Cervical screening, mammography
 - Control of cancer pain

Review of dissemination strategies

	Search yield	Full text screen	Data extracted
Smoking cessation	1587	213	15 studies (19 articles)
Healthy diet	2872	95	5 studies (7 articles)
Mammography	597	72	4 studies
Cervical Cancer screening	357	36	2 studies
Control of cancer pain	835	33	3 studies

Dissemination strategies

Intervention category

Examples of interventions included

Dissemination targeting health professionals

Train the trainer, academic detailing, treatment algorithms, role modeling, multiple dissemination strategies, postal delivery

Dissemination targeting organizations (eg HMOs)

Evidence based manuals, workshops, targeted approaches to management, passive dissemination of worksite interventions

Dissemination targeting individuals

Media awareness campaigns, peer leader programs

Smoking cessation

- ✓ ‘Train the trainer’ approaches improve knowledge and awareness, but no clear evidence that they impact on advice to quit or cessation rates
- ✓ Media awareness campaigns are important strategies to disseminate information about CIS
- ✗ Academic detailing by educational facilitator - no clear evidence of benefit
- ✗ Postal delivery of smoking cessation materials

Healthy diet

- ? Peer educators in the worksite. Small increase in fruit and vegetable intake measured at 6 months
- ? Media awareness campaigns. Source of awareness of CIS hotlines (TV most important)
- ✘ ‘Train the trainer’ increase of preventive medicine in teaching content. No evidence of any change in advice to patients

Mammography

- ? Introductory letters and telephone contact with worksite management to sponsor mammography interventions (printed materials, education sessions, or nurse training).
- ? Evidence based manual for mammography (intensive workshop v passive distribution). No difference between methods of distribution. Manual resulted in increased implementation of interventions and small increase in mammography rates (0.22% - 4%)
- ✘ Academic detailing re office systems. Small increase in mean number of indicators, but no difference in proportion of women's records with mammogram report

Cervical cancer screening

- ✘ Academic detailing re guidelines, office systems and educational materials. Minor changes in use of office systems only. No information on screening rates
- ? Media awareness. Television was primary source of information for callers to CIS

Control of cancer pain

- ✘ Use of a treatment algorithm. Increase in physician adherence to treatment algorithm but no difference in any pain subscales. Training effect decreased over period of study
- ? Role modeling, or observership programs. Increased in process measures such as knowledge and education of other healthcare providers. No information given on integrating pain assessment into clinical practice

Summary



- We know a lot about the effectiveness of cancer control interventions
- We know little about how to disseminate those interventions
- Passive approaches (diffusion) such as mailing of materials to targeted populations were generally ineffective. Active approaches (dissemination) such as train-the-trainer model, media campaigns and opinion leaders were more likely to be effective in promoting change in knowledge and attitudes when used alone or in combination.

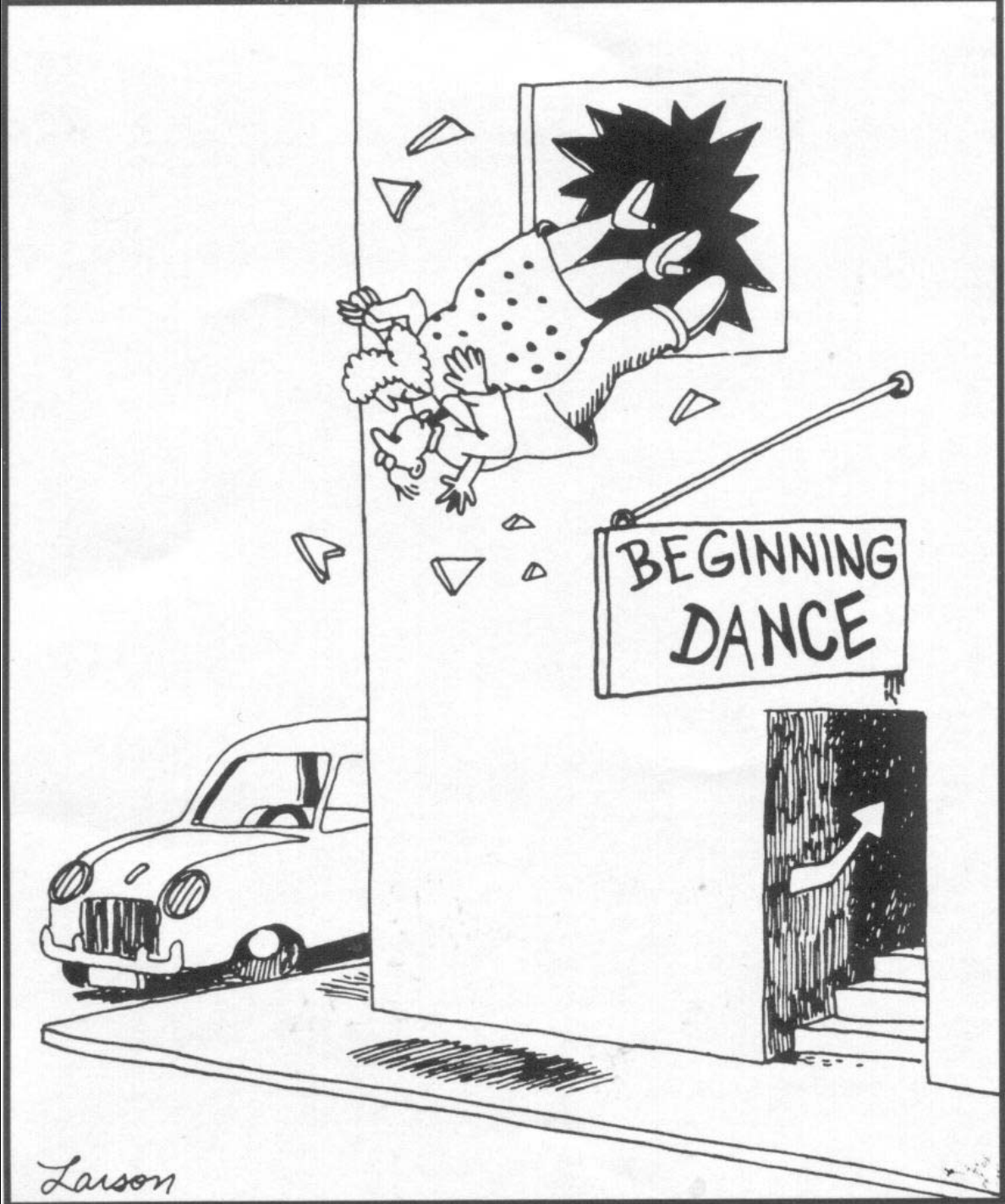
Future directions

- Future dissemination research needs to focus on attempts to disseminate *effective* cancer control interventions.
- What is the role of controlled trial designs in dissemination research? What information can be obtained from other designs?
- What outcomes (process measures v behavior change) are important to consider in dissemination research?
- Are cancer control interventions equally effective when they are more widely disseminated in the community?

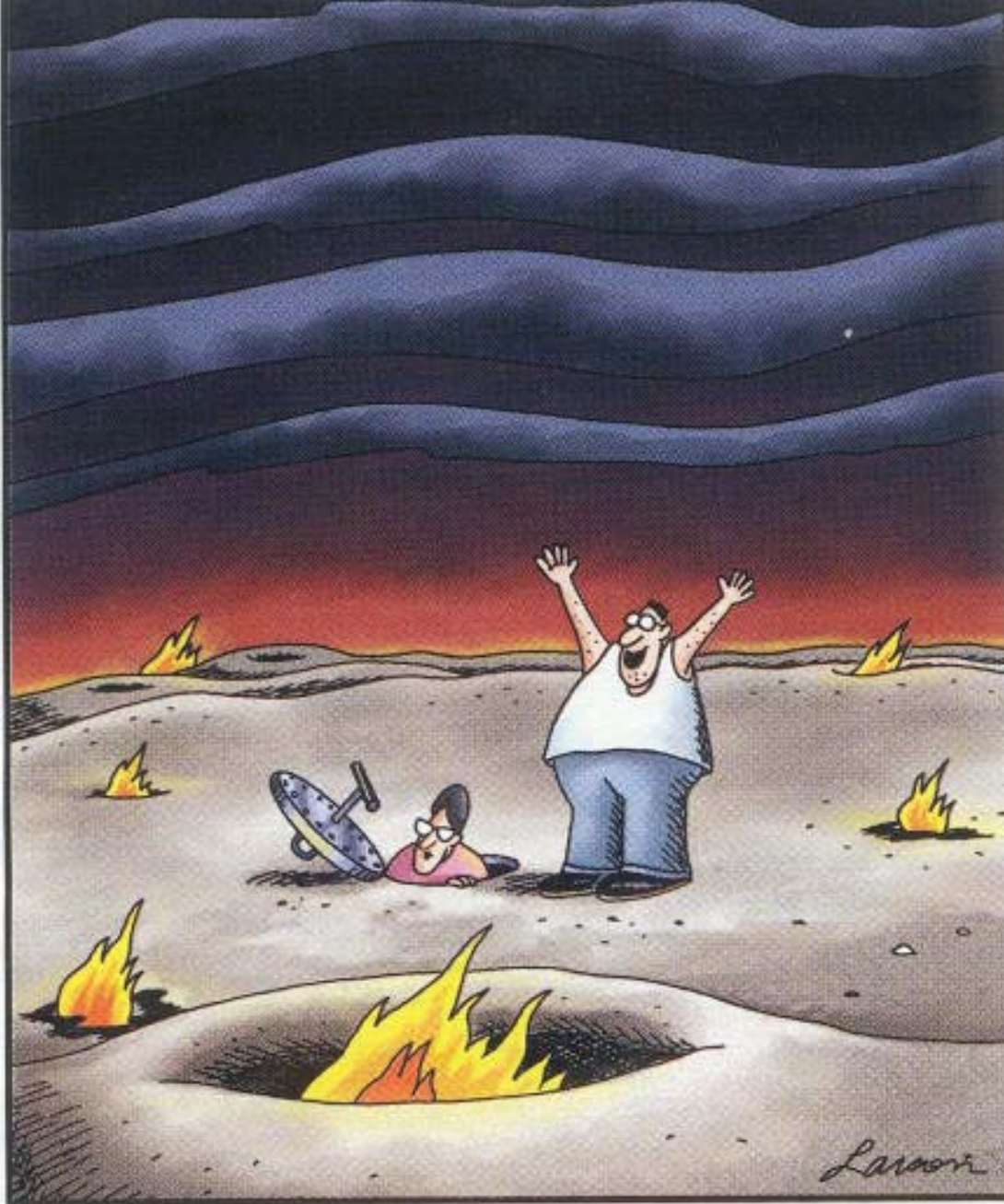
Future directions



- What information can be provided from qualitative research i.e. case studies? Local barriers may be important factors that reduce the effectiveness of the interventions or the success of dissemination strategies.
- Would establishing criteria for reporting dissemination research such as the CONSORT statement for reporting of randomized trials and the MOOSE proposal for observational studies in epidemiology help to clarify this field of research?



Larson



"Thank God, Sylvia! We're alive!"

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