Increasing Cancer Screening: Provider Assessment and Feedback

Summary Evidence Table

Study	Location Intervention Comparison	Study population description Sample size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time
Author (year): Battat (2004)* **Study Period:** 1998 – 2003 **Design Suitability:** Moderate **Study Design:** Time series **Quality of execution:** Fair (4 limitations) **Outcome Measurement:** Completed Screening: Colorectal Cancer (FOBT, Flex sig, Colonoscopy) Record Review	**Location:** US, Palo Alto, CA **Intervention:** Each VA facility's performance was monitored against a target rate set by Veteran's Healthcare admin and compared directly among other VA facilities. Rates were published in an internal publication of the VA Preventive Health Initiative. **Comparison:** Usual Care	**Study population:** Patients in the primary clinic cohort who were at least 52 years old and did not have a terminal condition. **Sample size:** Not reported	Absolute changes in proportion of completed screening	1996: 30% 1997: 51%	1998 55% 1999 80% 2000 73% 2001 76% 2002 75% 2003 75%	+45 pct pts	60 months

Study	Location Intervention Comparison	Study population description Sample size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time
Author (year): Kern (1990) **Study Period:** 7/1981 – 6/1987 **Design Suitability:** Least **Study Design:** Pre-post **Quality of execution:** Fair (2 limitations) **Outcome Measurement:** Provision of Svcs: CBE PAP FOBT Record Review	**Location:** US, Baltimore, MD 1 intervention arm **Intervention:** Providers had a minimum of 4 charts/yr audited, received a detailed written summary of findings (including: verbatim comments from reviewers, analysis of performance, and suggestions for future performance **Comparison:** Pre-intervention	**Study Population:** Providers: Internal medicine residents at the medical house staff practice Patients: Predominately working class, often ethnic patients served by the practice **Sample size:** Residents 1986: n=41 1981: n=46	Absolute change in proportion of providers in compliance with provision of services relative to pre-intervention	CBE: 33% PAP: 39% FOBT: 46%	67% 49% 69%	+34 pct pts +10 pct pts +23 pct pts	72 months

Study	Location Intervention Comparison	Study population description Sample size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time
Author (year): Kinsinger (1998) **Study Period:** 1993 – 1994 **Design Suitability:** Least **Study Design:** Pre-post, for PAF **Quality of execution:** Good (1 limitation) **Outcome Measurement:** Completed Screening: Mammography CBE Record Review	**Location:** US, North Carolina 1 intervention arm **Intervention:** Received simple printouts of screening performance from chart review **Comparison:** Pre-intervention period	**Study Population:** <u>Providers:</u> Family practice and internal medicine physicians <u>Patients:</u> Women at 50 years with at least one visit in the index year (1991 for baseline & 1994 for f/u) and at least one prior visit, and no history of cancer **Sample size:** Baseline: n= 2887 women Follow-up: n= 2874	Absolute change in proportion of completed screening relative to pre-intervention period.	Mammography: 30.6% CBE: 44.6%	Mammography: 34.0% CBE 43.9%	3.4 pct pts -0.7 pct pts	18 months

Study	Location Intervention Comparison	Study population description Sample size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time
Author (year): leming (1983) **Study Period:** 1980 **Design Suitability:** Least Suitability **Study Design:** Pre-post **Quality of execution:** Fair (4 limitations) **Outcome Measurement:** Completed screening: Pap test Record Review	**Location:** United Kingdom 1 intervention arm **Intervention:** Continuing education course followed by audit, where initial results were published. Participants considered and discussed the implications of findings. Each provider given the results for the entire group and for their own practice **Comparison:** None	**Study population:** Providers: General practitioner practices partiticipating in a continuing education course for general practioners. Patients: Women ages 30 to 59 years **Sample Size:** Practices: n = 29 Patients: n = 1190 (Pre) n = 1186 (Post)	Absolute changes in pap test rates relative to the pre-intervention period	56% Ages 30 -39: 62% 40-49: 59% 50-59: 44%	63% 72% 64% 47%	+7 pct pts (p<0.01)	24 months

Study	Location Intervention Comparison	Study population description Sample size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time
Author (year): McPhee (1989) **Study Period:** NR **Design Suitability:** Greatest **Study Design:** RCT **Quality of execution:** Good (1 limitation) **Outcome Measurement:** Proportion of clients that should have been tested Mammography Pap-test FOBT Flex Sig Record Review	**Location:** US, San Francisco, CA 2 intervention arms (only PAF reported here) **Intervention:** Research team audited records of a random sample of each resident's patients over 9 months prior to intervention. During monthly meetings results were reviewed with each resident confidentially. Also included computer generated reminders, and client education (mailed informational letters and brochures) **Comparison:** Usual care	**Study population:** Providers: Internal medicine residents Patients: Clients who were 40 years or older with a visit during intervention and enrollment in practice at least 1 year before most recent visit **Sample size:** Providers: n = 62 Intervention (PAF): n=20 w/Client Ed: n = 10 w/o client Ed: n = 10 Comparison w/Client Ed: n = 10 w/o Client Ed: n = 11	Absolute difference in compliance score relative to comparison group with p-value for post intervention results adjusted for peformance differences at baseline *(Note: Scores for PAP based on different scales, some women got tested more often)*	Mammography: I: 34.1% C: 33.6% PAP: I: 90.8 C: 114.6 FOBT: I: 64.8 C: 69.6 Flex Sig: I: 20.2 C: 21.0	Mammography: I: 66.5% C: 44.3% PAP: I: 157.8 C: 135.7 FOBT: I: 83.1 C: 69.2 Flex Sig: I: 30.0 C: 31.0	+21.7 pct pts +45.9 pct pts +18.6 pct pts 0 pct pts	NR

Study	Location Intervention Comparison	Study population description Sample size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time
Author (year): Nattinger (1989) **Study Period:** 9/1987 – 3/1988 **Design Suitability:** Moderate **Study Design:** Non-randomized **Quality of execution:** Fair (3 limitations) **Outcome Measurement:** Ordered and/or completed screening Mammography Record Review	**Location:** US, Rochester, NY 2 intervention arms (only PAF reported here) **Intervention:** Individual feedback on the percentage of patients who had a mammogram. Feedback based on encounter form and/or tests completed according to radiology department. **Comparison:** Usual Care	**Location:** <u>Providers:</u> Physicians and internal medicine residents in the Outpatient Department of the Strong Memorial Hospital clinic. <u>Patients:</u> Women between 50 and 74 years with one or more outpatient visits during the intervention period and no dx of breast mass on encounter form prior to mammogram **Location:** Intervention: Providers n = 14, Patients n = 152 Comparison: Providers n = 21, Patients n = 227	Absolute change in proportion of women for which mammogram was order and/or completed relative to the comparison group	Completed Mammography: I: 22.1 % C: 19.8%	I: 49% C: 33%	+14 pct pts (p<0.007)	6 months

Study	Location Intervention Comparison	Study population description Sample size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time
Author (year): Tierny (1986) **Study Period:** 4/1983 – 1/1984 **Design Suitability:** Greatest **Study Design:** gRCT **Quality of execution:** Fair (3 limitations) **Outcome Measurement:** Completed Screening Mammography Pap-test FOBT Record Review	**Location:** US, Indiana 3 intervention arms **Intervention:** 1. Computer audit and monthly feedback for clients seen that month due for but did not receive preventive care (PAF). 2. Computer generated reminder of clients due for but did not get preventive care (PR) 3. PAF + PR **Comparison:** For each group of preventive measures (A or B) providers who did not receive feedback or reminders about that group of tests (but did receive feedback and/or reminder about the other group of tests)	**Study population:** Providers: Internal medicine housestaff at designated clinic during study time period. Patients: Clients seen by housestaff **Sample size:** Intervention: Providers: n = 135 A/A: n = 33 A/B: n = 31 B/A: n = 36 B/B: n = 35 Patients: n = 6045 Not reported by preventive measure	Proportion of clients receiving screening (relevant measures of preventive care) relative to comparison.	NR	PAF only Mamm: 21% PAP: 32% FOBT: 38%	Vs. comparison +14 pct pts +4 pct pts +13 pct pts	7 months

Studies Reporting on Offered or Ordered Screening

Study	Location Intervention Comparison	Study population description Sample size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time
Author (year): Brady (1988) **Study Period:** 9/1985 – 8/1986 **Design Suitability:** Greatest **Study Design:** iRCT **Quality of execution:** Fair (3 limitations) **Outcome Measurement:** Ordered & Completed Screening: Mammography Record Review: Patient refusals = not ordered	**Location:** US, Cincinnati, Ohio 1 intervention arm: **Intervention:** Didactic education sessions for providers followed by self-auditing of charts for mammograms completed in 1985. The didactic education series was repeated in 1986 followed by cumulative results of audits given to all residents **Comparison:** No self audit, but received cumulative group results of mammography audits	**Study population:** Internal medicine residents seeing patients ½ day per week in the clinic **Sample size:** <u>Providers:</u> Mammography self audit: n = 15 Imm self audit: n = 15 Comparison: n = 15 <u>Patients:</u> N = 5000	Absolute difference in proportion of ordered mammograms relative to the comparison group	NR	I: 26% C: 16%	+10 pct pts (p<0.05)	16 months

Study	Location Intervention Comparison	Study population description Sample size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time
Author (year): Goebel (1997) **Study Period:** 7/1994 – 3/1996 **Design Suitability:** Moderate **Study Design:** Time series **Quality of execution:** Fair (3 limitations) **Outcome Measurement:** Offered Screening: Mammography CBE Pap-test FOBT Flex Sig **Outcome Measurement:** Record Review	**Location:** US, Huntington, WV 1 intervention arm **Intervention:** Prevention guidelines and periodic peer chart review (every 8 weeks) and feedback (QA form) with attending supervision. **Comparison:** Pre-intervention period (6 months before start of the intervention)	**Study Population:** <u>Providers:</u> Internal Medicine Residents <u>Patients:</u> Patients treated by the residents during the study period. Clients in the pre-intervention comparison matched by age **Sample size:** Residents: Pre-intervention period: NR Guideline period: n = 34 Patients: Guideline period: 148/739 Follow-up: n = 150/839 *Note: 13 were also in pre-intervention group & 8 also in guideline group* Comparison (pre-intervention): n = 148	Absolute change in proportion of screenings offered relative to pre-intervention. Odd ratio (95% CI)	Mamm:58% CBE: 42% Pap-test: 46% FOBT: 39% Flex Sig: 10%	86% 91% 84% 73% 21%	+28 pct pts +49 pct pts +38 pct pts +34 pct pts +11 pct pts Odds Ratio (95% CI) Mamm: 4.53 (1.51, 13.99) CBE: 13.60 (5.11, 37.67) Pap-test: 6.20 (2.70, 14.51) FOBT: 4.29 (2.21, 8.39) Flex Sig: 2.49 (1.00, 6.34)	20 months

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Study	Location Intervention Comparison	Study population description Sample size	Effect measure	Reported baseline	Reported effect	Value used in summary [95%CI]	Follow-up time
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* Study from the updated search period