Increasing Cancer Screening: Provider Incentives

Summary Evidence Table

Completed Screening

Study	Location Intervention Comparison	Study population description Sample size	Effect measure	Reported baseline	Reported effect	Follow-up time
Author (year): Rosenthal (2005)* **Study Period:** 2001–2004 **Design Suitability:** Greatest **Study Design:** Group non-randomized trial **Quality of Execution:** Good **Outcome Measurement:** Completed breast and cervical cancer screening (Health plan performance reports based on administrative data)	**Location:** US, California, Oregon and Washington **Intervention:** Quarterly practice bonus of ~ $0.23 per member per month for each performance target met. Bonus potential represents ~5% of capitation ($27 per enrollee). **Comparison:** Physician groups in the Pacific Northwest (Oregon and Washington).	**Study population**: Physician groups from a large health plan, which had a minimum 1000 Pacific Care Commercial and 100 Secure Horizons (Medicare Advantage) members. **Sample Size:** Intervention: n=134 Comparison: n=33 (PAP) n=32 (MAM)	Absolute change in completed breast and cervical cancer screening.	PAP: Intervention: 39.2% Comparison: 55.4% Mammography (MAM): Intervention: 66.1% Comparison: 72.4%	PAP: +3.6 pct pts (p<.05) MAM: +1.7 pct pts(p>.05)	1 yr

Study	Location Intervention Comparison	Study population description Sample size	Effect measure	Reported baseline	Reported effect	Follow-up time
Author (year): Armour (2004)* **Study Period:** 2000-2001 **Design Suitability:** Least **Study Design:** Before/After **Quality of Execution:** Fair **Outcome Measurement:** Completed CRC screening (based on managed care health plan claims data)	**Location:** US, Southeast – patients residing in one state **Intervention:** Year end bonuses for physicians. **Comparison:** Pre-intervention period.	**Study population:** Individual practice association physicians who were eligible for year end bonuses according to proprietary criteria and their commercially insured patients age=50 who were continuously enrolled in the health plan in 2000 and 2001. **Sample Size:** Intervention: n=3691 patients **Comparison:** n=3058 patients	Absolute change in colorectal cancer screening.	Fecal Occult Blood Test (FOBT): 17.8% Flexible sigmoidoscopy or colonoscopy (FS/C): 8.6% Double Contrast Barium Enema (DCBE): 1.3%	FOBT: +2.8 pct pts (p<.05) FS/C: +1.2 pct pts (p>.05) DCBE: -0.1 pct pts (p>.05)	1 yr
Author (year): Grady (1997) **Study Period:** not reported **Design Suitability:** Greatest **Study Design:** Group randomized trial **Quality of Execution:** Fair **Outcome Measurement:** Mammography completion rates (Chart audit)	**Location:** US, Dayton, OH & Springfield, MA **Intervention 1:** Provider reminder Intervention 2: Provider reminder, provider assessment and feedback, provider incentive (Physician bonus based on the percentage referred during each audit period, i.e., $50 for a 50% referral rate)	**Study population:** Community-based general practice, family practice or internal medicine practices, with 1-6 physicians and which provide primary care for at least 50 women age 50 or older per month per physician. **Sample Size:** Intervention 1: n=18 Intervention 2: n=20	Absolute change in mammography completion rates	Intervention 1: 17.7% Intervention 2: 12.6%	I_2 vs. I_1 = -2.0 pct pts (p>.05)	1 yr

Study	Location Intervention Comparison	Study population description Sample size	Effect measure	Reported baseline	Reported effect	Follow-up time
Author (year): Reid (1991) **Study Period:** 1990 **Design Suitability:** Least **Study Design:** Before/After **Quality of Execution:** Fair **Outcome Measurement:** Proportion of women with cervical cancer screening (Lab record audit)	**Location:** Perth and Kinross, Scotland **Intervention:** A new contract for general practitioners revamped the remuneration system for cervical smear testing. The new contract set targets of 50% and 80% linked directly to remuneration. **Comparison:** Pre-intervention period under prior remuneration system (item of service basis).	**Study population:** Women ages 21 – 60 without a hysterectomy who attend one of the eligible 26 practices in the area. **Sample Size:** N not reported	Absolute change in proportion of women with cervical cancer screening.	78%	8 pct pts (p<.05)	6 mos

*From the updated search period.

Offered Screening

Study	Location Intervention Comparison	Study population description Sample size	Effect measure	Reported baseline	Reported effect	Follow-up time
Author (year): Hillman (1998) **Study Period:** 1993 – 1995 **Design Suitability:** Greatest **Study Design:** Group randomized trial **Quality of Execution:** Fair **Outcome Measurement:** Compliance with screening (physician referral for screening with or without actual test results). (Chart audit)	**Location:** US, Philadelphia, PA **Intervention:** A financial practice incentive based on aggregate compliance with cancer screening. Semi-annual feedback was given to the providers, documenting site performance for each guideline, an aggregate score across all measures, and plan-wide scores. **Comparison:** Usual payment	**Study population:** the 52 largest primary care sites in the area **Sample size:** Intervention: n=26 Comparison: n=26	Absolute change in referral/ screening rates	<u>Pap</u> Baseline Intervention=25.4% Control=16.5% <u>Mammogram</u> Baseline Intervention=40.9% Control = 34.4% <u>Colorectal</u> Baseline Intervention=14.9% Control = 10.8%	PAP: -0.8 pct pts (p>.05) Mammography: -1.5 pct pts (p>.05) Colorectal: 2.2 pct pts (p>.05)	18 mos

Study	Location Intervention Comparison	Study population description Sample size	Effect measure	Reported baseline	Reported effect	Follow-up time
Author (year): Grady (1997) **Study Period:** Not reported **Design Suitability:** Greatest **Study Design:** Group randomized trial **Quality of Execution:** Fair **Outcome Measurement:** Offered mammography rates (Chart audit)	**Location:** US, Greater Dayton, OH and Greater Springfield, MA **Intervention 1:** Provider reminder **Intervention 2:** Provider reminder, provider assessment and feedback, provider incentive (Physician bonus based on the percentage referred during each audit period, i.e., $50 for a 50% referral rate)	**Study population:** Community-based general practice, family practice or internal medicine practices, with 1-6 physicians and which provide primary care for at least 50 women age 50 or older per month per physician. **Sample Size:** Intervention 1: n=18 Intervention 2: n=20	Absolute change in mammography referral rates	Intervention 1: 25.8% Intervention 2: 19.0%	I_2 vs. I_1 = 1.0 pct pts (p>.05)	1 yr