Testing the use of novel patient financial incentives to improve breast cancer screening rates

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Context
• Routine screening mammograms to detect breast cancer can save lives
  – But many eligible women do not obtain the screening (e.g.: average 30% in commercial HMOs1). Even in high-performing health plans, many do not obtain.
• Financial incentives improved mammography uptake in some studies2
• Lottery incentives have not been evaluated for mammography
• Depression may affect use of preventive services and possibly response to incentives

Sample and Intervention Period
• Privately insured, Tufts Health Plan, Massachusetts members
• Women 40-69 years old, no mammogram past 2.5 years
• Track mammography receipt during 4-month intervention period
• Mail incentives to members who received mammograms as appropriate to intervention group

Sample Description
• n = 4,427 subjects
• Education: 40% completed college, 50% completed high school, 10% neither
• Household income (from zip): mean=$70,829
• Age: 36% were 40-49; 43% were 50-59, 21% were 60-69
• Common health conditions (in past 12 months, from diagnoses in claims):
  – 20% had hypertension,
  – 11% had depression

Study goals
• Address problem of eligible women who have not received mammogram in past 2.5 years (modified HEDIS selection criteria.
• Randomized controlled trial to evaluate impact of 3 types of low-cost financial incentives for members overdue for routine screening mammography
• Main outcome: Mammography rates
• Includes novel patient-choice option we term “person-centered incentives”
• Qualitative component: Insight into member views on incentives in this context

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Incentive Approaches
• **GIFT CARD**
  – The goal was to test low-cost, widely feasible incentives ($15)
• **PRIZE-BASED**
  – We offered the chance to win one of five $250 gift cards
• **PERSON-CENTERED** (CHOICE)
  – Choice of $15 gift card or prize-based
  – Allow each individual to self-match to the incentive she finds most meaningful
  – Could engage patient more in decision-making

Discussion
• Gift card was a more popular choice than prize-based, among those who indicated preference
• None of these incentives was found to be significantly more effective, compared to reminder only
• The sample consisted of women with no mammogram for over 2 years – perhaps especially hard to influence

Implications
• One could consider refinements:
  – Larger incentives, more appealing choices
  – More immediate rewards
  – Intervention might be effective with individuals who have had more recent screening
• The incentives may work better for subgroups, e.g. those with depression, or who are less overdue
  – May not be desirable to offer incentives only to subgroups
  – However, this can help inform further research on response to incentives

References

Design and Methods

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Results

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References

Further Information
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