

11-2017

Evaluating Patient Preferences for Different Incentive Programs to Optimize Pharmacist-Provided Patient Care Program Enrollment

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Recommended Citation

Tomaszewski D, Cernohous T, Vaidyanathan R. Evaluating patient preferences for different incentive programs to optimize pharmacist-provided patient care program enrollment. *J Manag Care Spec Pharm*. 2017;23(11):1140–1147. doi: 10.18553/jmcp.2017.23.11.1140

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Comments

This article was originally published in *Journal of Managed Care & Specialty Pharmacy*, volume 23, issue 11, in 2017. DOI: [10.18553/jmcp.2017.23.11.1140](https://doi.org/10.18553/jmcp.2017.23.11.1140)

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Evaluating Patient Preferences for Different Incentive Programs to Optimize Pharmacist-Provided Patient Care Program Enrollment

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ABSTRACT

BACKGROUND: Employers have increased efforts to engage employees in health and wellness programs. Providing employees with incentives to participate in these programs has been shown to improve overall enrollment and engagement. One program that has had challenges with enrollment and engagement is medication therapy management (MTM).

OBJECTIVES: To (a) determine how individuals evaluate different financial incentives to improve participation in an MTM program and (b) measure the effect of participant characteristics on incentive preference.

METHODS: This study was composed of a paper-based survey administered to participants after focus group sessions. Participants included MTM-eligible beneficiaries from 2 employer groups and included MTM-naive and MTM-experienced participants. Incentive preference was measured based on 3 bipolar scales that compared 3 incentives: \$100 gift certificates, \$8 copay reduction for 6 months, and \$100 added to paycheck.

RESULTS: A total of 72 participants completed the survey: 34 participants were MTM experienced, and 38 were MTM naive. Overall participant preference reporting resulted in inconsistencies. Copay reduction was preferred to a gift certificate (55.6% vs. 37.5%); money in paycheck was preferred over copay reduction (48.6% vs. 40.3%); and gift certificates were preferred over money in paycheck (56.9% vs. 22.2%). However, subgroup analysis resulted in a more consistent preference reporting, with MTM-experienced participants consistently preferring copay reduction over gift certificates (67.6% vs. 23.5%) and money in paycheck (55.9% vs. 29.4%). MTM-naive participants preferred a gift certificate over copay reduction (51.4% vs. 44.7%) and cash in paycheck (68.4% vs. 23.7%).

CONCLUSIONS: The results of this study suggest that gift certificates were preferred by MTM-naive participants, which supports the use of gift certificates as an incentive for MTM-naive patients to enroll in an MTM program. Conversely, the use of a copay reduction program was preferred by MTM-experienced participants, suggesting that it may be ideal for participants already enrolled in an MTM program. The results suggest the potential value of using multiple forms of incentives to attract MTM-naive and experienced beneficiaries.

J Manag Care Spec Pharm. 2017;23(11):1140-47

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What is already known about this subject

- Evidence is mixed regarding the ability of incentives to encourage employee engagement in health and wellness programs.
- Use of incentives to encourage completion of a 1-time activity has been shown to increase employee involvement.

What this study adds

- The results of this study suggest that different forms of incentives are preferred based on whether a patient is already enrolled in an MTM program or has never been enrolled in an MTM program.
- Incentives focused on increasing employee enrollment in an MTM program may be best delivered as an upfront hedonic incentive, such as a gift certificate; whereas, continued engagement in an MTM program after enrollment may be better achieved with an ongoing incentive, such as a copay reduction program.
- Different employee characteristics, such as sex, may also effect what type of incentive is preferred.

Employers and employees receive significant benefits from workplace health promotion programs, which often include cost savings for both parties.^{1,2} Despite employer recognition that encouraging employees to participate in healthy behaviors increases productivity, profitability, and employee satisfaction, introducing programs does not reap the expected benefits unless employees actively participate in such programs.^{3,4} It is important to identify ways in which employees can be encouraged to voluntarily engage in activities that would benefit their long-term health.

Providing employee incentives for enrolling in health-related programs such as weight loss, smoking cessation, and physical activity programs has been shown to be successful when engagement incentives were provided.⁵⁻⁷ As a result, there has been an expanding use of incentives in many employee-sponsored wellness programs.^{8,9}

One such wellness program that is intended to encourage better medication use and optimize health outcomes is medication therapy management (MTM). Since the inception of MTM and inclusion as a covered benefit by some insurance plans, the general level of engagement by patients has been low. Within commercial health plans, MTM participation rates have ranged from 5.4% to 12% (unpublished personal communication, J. Balthazor to T. Cernohous, UPlan medication therapy management enrollment rates, 2010).¹⁰ Similarly, Medicare-sponsored MTM programs have seen correspondingly low participation, with MTM enrollment ranging from 0.2% to 57.3%, with an average enrollment of 10%.¹¹

The low MTM program patient enrollment rates have challenged insurance plan sponsors who desire to increase

MTM participation rates because of the high financial return on investment for the service, which ranges from 1.29:1 to 12:1.^{12,13} The service's ability to consistently reduce overall health care costs across diverse patient populations have encouraged payers to implement incentive programs to support better beneficiary uptake.

Extending incentives for use with MTM enrollment has been increasing; however, little research has been conducted to demonstrate the effect of such incentives. In addition, there is no apparent published research that has evaluated how patients value incentives related to an MTM program.

The use of incentives also has been tied to encouraging individuals to participate in a wide variety of health-related initiatives.¹⁴ While merely improving health can be seen as an incentive, research in behavioral economics has consistently shown that short-run incentives are necessary to get individuals to engage in behaviors that have long-term benefits because of the immediate temporal, monetary, and psychological costs of engaging in the behaviors.¹⁵ These incentives have included direct pay from employers; reductions in insurance premiums, deductibles, or copayments; and other monetary gifts. In a Kaiser Family Foundation review of employer wellness programs, it was reported that 36% of large employers and 18% of small employers offer incentives for participation in a wellness program.¹⁶ Still, there is limited research on the effectiveness of various types of incentives from cash to gift certificates, even though employers use a wide variety of such incentives.¹⁷ Some research has shown that monetary incentives have been successful in improving a variety of health-related interventions, including smoking cessation, weight loss, and physical fitness.^{6,16,18,19}

However, results regarding the effectiveness of incentives have been decidedly mixed. Questions have been raised about the ability of incentives to encourage individuals to complete health-related interventions.²⁰ Neither immediate nor delayed insurance premium adjustments were shown to be effective in promoting weight loss in a study that also examined lottery incentives.²¹ A Cochrane review of the use of incentives to increase smoking cessation through tangible incentives concluded that the evidence is inconclusive regarding the effectiveness of incentivizing patients.²² The authors of the Cochrane review did not offer a rationale for the variability in the resulting outcomes of the included studies but did note that the studies used various types of incentives with varying values.

Research that has evaluated the ability of incentives to increase response rates to surveys has generally shown cash to be a stronger incentive than gift certificates.²³ However, in marketing, a focus on the emotional value of gifts has led to different conclusions.²⁴ The marketing and psychology literature has examined how consumers process rewards or "gains" of all kinds. We tend to process "windfall" gains differently than

other gains of equal value.²⁵ Although economists recognize the fungibility of money (\$100 in cash should actually have more utility than a \$100 gift certificate), they acknowledge that individuals process these differently.²⁶

This study examined patient preferences for a variety of incentives in the context of MTM services. Health program administrators need to know which incentives to use in order to maximize enrollment probability while minimizing the cost of providing the incentives.

The objectives of this study were to (a) determine how individuals evaluate the relative value of different financial incentives to participate in an employer-sponsored MTM program and (b) measure different incentive preferences based on participant characteristics and level of experience with MTM services.

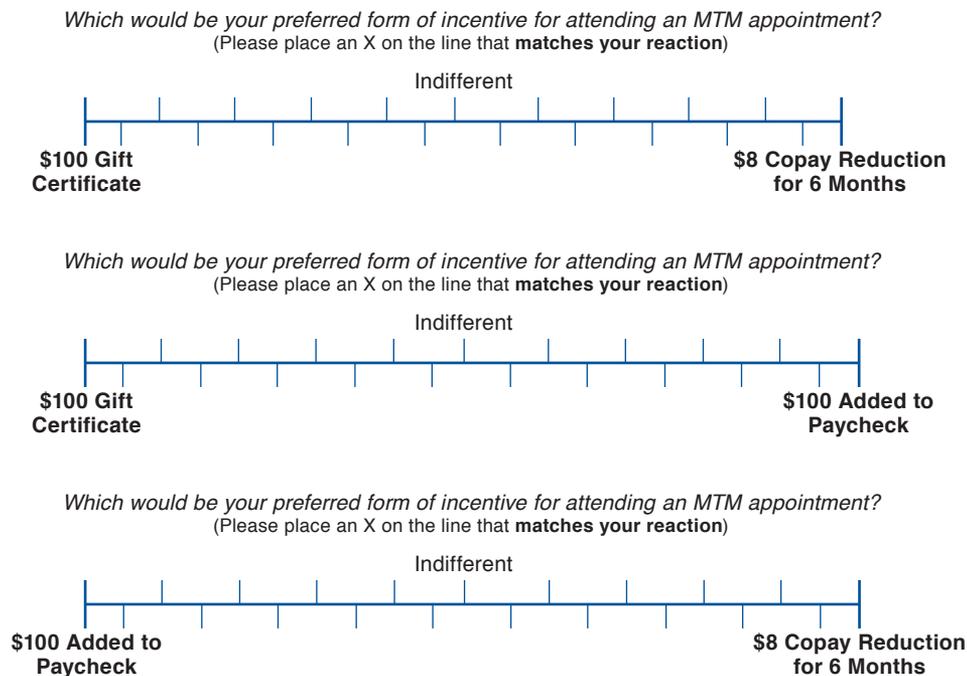
Methods

For this study, participants completed a paper-based survey that was administered following the completion of focus group sessions. These focus groups were conducted as part of a separate study that gathered qualitative data regarding an employer-sponsored MTM program. The focus group sessions lasted approximately 90 minutes, and participants voluntarily completed the survey during a planned break approximately 15 minutes before the conclusion of the focus group session.

Participants were recruited from a list of beneficiaries from 2 regional Minnesota employer groups and included participants who did not have any experience with MTM (MTM naive), as well as participants who did (MTM experienced). Both employer groups offered similar MTM programs, which included pharmacist-run comprehensive medication management clinics. Participation was restricted to English-speaking beneficiaries who were aged at least 18 years and taking 4 or more chronic medications (over the counter or prescription), MTM eligible based on plan definitions, and were able to independently make their own health care decisions. Participants were excluded if they were enrolled in a Medicare Part D plan, were employed by the University of Minnesota College of Pharmacy, or were a practicing licensed pharmacist.

The exit survey was composed of 4 unique sections: personal knowledge of MTM, MTM place of service valuation, health-related characteristics, and valuation of MTM incentive. This study focused on the results of the survey section dealing with the evaluation of MTM incentives. Survey data were collected between August 2010 and January 2011 and was approved by the University of Minnesota Institutional Review Board.

Subjects were asked to indicate their preference for various forms of incentives on 3 scales. The 3 incentive formats examined were a \$100 gift certificate, an \$8 copay reduction on all prescription medications for 6 months, and \$100 added to a paycheck. While the gift certificate and paycheck addition were monetarily equivalent, the total value of the \$8 copay reduction varied depending on the number of medications used by

FIGURE 1 Incentive Preference Reporting Scales

MTM = medication therapy management.

the patient and the refill frequency. The copay reduction value of \$8 was selected for the survey, since it was the member cost-share for a generic medication at the time of the survey for the 2 employers. The minimum copay reduction value that a patient would realize by participating in an MTM program was \$192 (\$8 per medication times 4 medications per month for 6 months).

Respondents indicated their preferences for these incentives on 3 bipolar scales that had 2 of the 3 incentives on each end of the scale (using all combinations of the 3 incentives). Respondents were asked to indicate their preference for each alternative by marking an appropriate point on a linear scale, with the center point marked as “indifferent” (Figure 1). Responses were coded based on the center point receiving a score of “0,” the furthest left position as -10, and the furthest right position as +10.

The preferences expressed in these 3 scales allowed us to identify whether inconsistencies in preference reporting exist. Based on the results of participants’ preference for each scale, we could evaluate the effect of the differences in the temporal delay between each incentive.²⁷ That is, while a \$100 gift certificate is paid immediately, adding \$100 to a pay check will occur in the future, and an \$8 copay reduction will be delayed further into the future still. Increasing psychological distance to the reward can dramatically affect consumer reactions to the rewards.²⁸

The results are reported not only in terms of the percentage of respondents preferring each option (all responses to the left of center were reported as preferring the left option, while responses to the right of center were recorded as preferring the right option), but also in terms of the strength of preference for each option (using means, such that negative numbers indicate the extent of preference for the left option, while positive numbers indicate the extent of preference for the right option). Percentages highlight the overall rate that each incentive is preferred, regardless of the extent of preference. The means show how strongly each incentive is preferred to the other option on the scale.

The use of 3 scales allowed us to see if respondents were consistent in their preferences. For example, if respondents preferred a gift certificate over the copay reduction by 2 points on the scale (i.e., coded as -2 on the first scale shown in Figure 1) and \$100 added to a paycheck over the copay reduction by 0.5 points (i.e., coded as -0.5 on the third scale shown in Figure 1), they *should* prefer a gift certificate over the paycheck addition by 1.5 points (i.e., coded as -1.5 on the second scale shown in Figure 1) if their preferences were consistent. The coded score on scale 2 in Figure 1 can be inferred from the other 2 scores.

In addition, the survey included questions asking participants to report their ability to describe MTM, age group, sex,

TABLE 1 Overall Participant Characteristics

Characteristics	Number (N=72)	Percentage
Age groups, years		
30-39	4	5.6
40-49	13	18.1
50-59	22	30.6
60+	33	45.8
Sex		
Female	42	58.3
Male	30	41.7
MTM status		
Experienced	34	47.2
Naive	38	52.8
Number of health conditions		
1-2	27	37.5
3-4	31	43.1
5+	13	18.1
Unknown	1	1.4
Health care providers seen in past 12 months		
	(N=71)	(%)
1-2	23	32.4
3-4	26	36.6
5-6	22	15.5
Overall health rating		
Poor	1	1.4
Fair	4	5.6
Good	29	40.3
Very good	31	43.1
Excellent	7	9.7

MTM=medication therapy management.

and copayments paid in the past 6 months. These participant characteristics were reviewed for potential correlation to incentive-preference reporting.

Results

Participant Characteristics

A total of 72 participants enrolled in the primary research study, and all were invited to complete the exit survey. Of those 72 initial participants, 72 completed the survey, resulting in a 100% completion rate.

A complete list of reported participant characteristics is shown in Table 1. Participants included 4 individuals aged between 30-39 years; 13 individuals aged 40-49 years; 22 individuals aged 50-59 years; and 33 individuals aged greater than 60 years. The participant group was 41.7% male (n=30) and 58.3% female (n=42). Participants were predominantly white (94.4%). Based on self-reported health scoring, respondents predominantly rated their health as good (40.3%) or very good (43.1%). Five respondents (7%) reported their health as poor or fair, and 7 (9.7%) reported excellent health (Table 1). Mean self-reported 6-month copayment spending was \$315.89 (standard deviation=\$321.52) for all participants, \$280.86 for MTM-naive participants, and

\$355.45 for MTM-experienced participants. There was no statistically significant difference in self-reported copay spend comparing MTM-experienced and naive participants (P=0.35).

The participants included 34 individuals (47.2%) who had previously participated in an MTM program (MTM experienced) and 38 (52.8%) individuals who had not (MTM naive). Overall, participants who were MTM experienced reported improved capability to describe MTM, with 16 (47.1%) “strongly agreeing” with the statement “I could describe what MTM is to my friends/family.” An additional 17 (50%) MTM-experienced participants “agreed” with that statement. The MTM-naive group reported much lower levels of ability in describing MTM to friends and family. Just 4 participants (10.5%) “strongly agreed” with the statement, and an additional 17 (44.7%) “agreed” with the statement.

Incentive Preferences: Percentages

Overall, when comparing a \$100 gift certificate to an \$8 copay reduction, the majority of participants reported preferring the copay reduction (55.6% vs. 37.5%). However, participants reported preferring the \$100 added to their paychecks over an \$8 copay reduction program (48.6% vs. 40.3%). Finally, participants reported preferring a \$100 gift certificate over \$100 added to their paychecks (56.9% vs. 22.2%). Table 2 presents all percentages.

MTM-experienced and MTM-naive participants were examined separately. MTM-experienced individuals reported a preference that favored a delayed form of reimbursement (reductions of prescription copayments) over up-front reimbursements (either a 1-time \$100 gift certificate or a 1-time \$100 increase in pay). When MTM-experienced participants were asked to choose between a gift certificate or a copay reduction, 23 (67.6%) participants preferred the copay reduction; 8 (23.5%) participants preferred a gift certificate; and 3 (8.8%) had no preference. If given the choice between an increase to their paychecks or copay reductions, the preference was less pronounced, with 19 (55.9%) preferring copay reductions, 10 (29.4%) preferring increased pay, and 5 (14.7%) having no preference.

The MTM-naive group reported preferring up-front forms of reimbursement, with 19 (51.4%) respondents preferring a gift certificate over copay reductions, and 26 (68.4%) preferring a gift certificate over money in their paychecks. Twenty-five (65.8%) respondents preferred money in their paychecks over copay reductions. Of the MTM-naive participants, 17 (44.7%) preferred copay reductions to gift certificates, and only 10 (26.3%) participants chose copay reductions over money in their paychecks; 3 (7.9%) individuals did not report a preference for either.

Both groups reported preferences for a \$100 gift certificate over \$100 added to their paychecks (68.4% and 44.1%, respectively), although a much higher percentage of naive participants

TABLE 2 Incentive Preference Based on Experience with MTM Services

Incentive Preference: Participant reporting of preferred incentive when asked to compare each incentive head to head.

	MTM Naive n (%)	MTM Experienced n (%)	Overall n (%)
Preference reporting between a \$100 gift card vs. an \$8 copay reduction			
Prefer gift card	19 (50.0)	8 (23.5)	27 (37.5)
Prefer copay reduction	17 (44.7)	23 (67.6)	40 (55.6)
No preference	2 (5.3)	3 (8.8)	5 (6.9)
Preference reporting between \$100 in paycheck vs. an \$8 copay reduction			
Prefer money in paycheck	25 (65.8)	10 (29.4)	35 (48.6)
Prefer copay reduction	10 (26.3)	19 (55.9)	29 (40.3)
No preference	3 (7.9)	5 (14.7)	8 (11.1)
Preference reporting between \$100 in paycheck vs. a \$100 gift card			
Prefer gift card	26 (68.4)	15 (44.1)	41 (56.9)
Prefer money in paycheck	9 (23.7)	7 (20.6)	16 (22.2)
No preference	3 (7.9)	12 (35.3)	15 (20.8)

Note: The \$8 copay reduction applied to each prescription medication and was available for 6 months. Therefore, if a participant took 4 chronic medications on a daily basis, the value of the copay reduction incentive would equate to \$192 in copay savings over the 6-month period.

MTM= medication therapy management.

preferred the gift certificate. On the other 2 scales, MTM-naive and MTM-experienced respondents had opposite preferences.

Comparing males versus females, females preferred up-front incentives at higher rates than males. Overall, 26 (61.9%) females preferred money in their paychecks over copay reduction, and 22 (52.4%) females preferred a gift certificate over a copay reduction. However, the majority of females preferred a gift certificate (69.0%) over added money in their paycheck (23.8%) when using bipolar sliding scales. In contrast, males preferred delayed incentives, with 20 males (66.7%) preferring copay reductions to gift certificates (16.7%). Preference for copay reductions was less pronounced when compared with \$100 added to their paychecks (43.3% vs. 30.0%). Finally, the preference for gift certificates was also less distinct for males, with 12 (40.0%) reporting a preference for gift certificates, 6 (20.0%) preferring added money in their paychecks, and 12 (40.0%) reporting no preference.

Analysis of incentive preferences when comparing subgroups based on age, 6 months out-of-pocket copayments, and health status revealed no significant differences in preference reporting.

Incentive Preferences: Strength of Preference

When comparing the overall results using mean preferences based on bipolar sliding scales, participants preferred a \$100 gift certificate over an \$8 copy reduction by 1.8 points and preferred \$100 added to their paychecks over the copay reduction by 0.6 points. This finding suggests that they should prefer the \$100 gift certificate over the \$100 added to their paychecks by 1.2 points. Instead, on the second scale shown in Figure 1, the participants preferred the \$100 gift certificate by 2.8 points (as shown in Figure 2A). When directly comparing a gift certificate

with an amount added to their paychecks, participants showed an unexpectedly high preference for the gift certificate. The overall inconsistent preferences of the incentives are shown in Figure 2A. However, the source of the inconsistency was revealed during subset analysis, which separated the subjects by their experiences with MTM. MTM-naive subjects displayed inconsistent preferences compared with their experienced counterparts.

The calculated inferred preference of a \$100 gift certificate over \$100 added to their paychecks for MTM-naive participants was 0.67; however, the actual preference was much stronger than expected for the \$100 gift certificate over the \$100 added to the paycheck (-3.49 as shown in Figure 2B). MTM-naive participants consistently preferred the immediate \$100 gift certificate over each of the other options. No matter how the information was presented, MTM-naive subjects reported a strong preference for a gift certificate and a low preference for an \$8 copay reduction (Figure 2B).

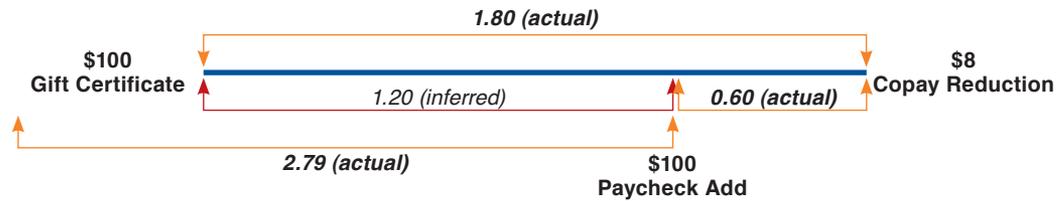
In contrast, MTM-experienced participants had nearly perfect consistency in their preferences across the 3 scales. This consistency was borne out by comparing the calculated inferred preference for a \$100 gift certificate over \$100 added to their paychecks to the actual reported difference. The results demonstrated a negligible difference between the predicted preference of 2 on the linear scale and the actual reported preference of 2.03 for the \$100 gift certificate (Figure 2C).

Discussion

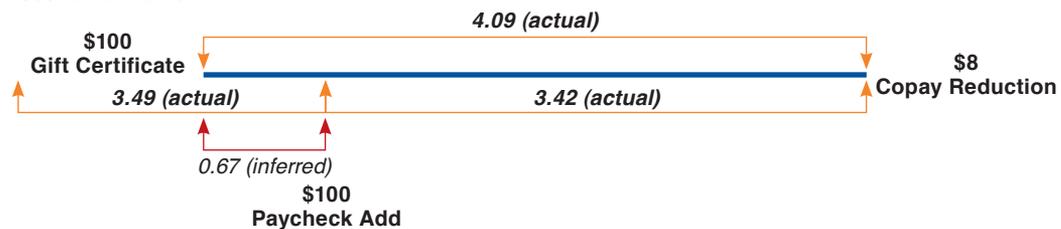
The findings of this study provide an insight into how commercially insured consumers evaluate various forms of incentives offered to encourage the use of an MTM program. Age, sex, and previous experience with an MTM program affected the preferred form of incentive.

FIGURE 2 Measured Degree of Incentive Preferences

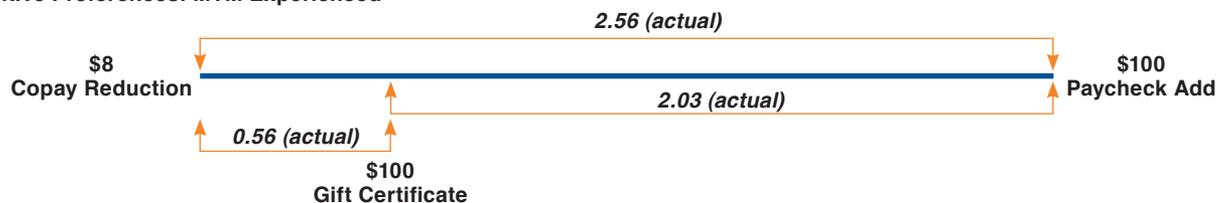
A. Incentive Preferences: Overall



B. Incentive Preferences: MTM Naive



C. Incentive Preferences: MTM Experienced



Note: Inferred values were calculated by using the scaled preference reported in the remaining 2 bipolar scales. For instance, the inferred value provided in Figure 2A was calculated based on the preference reported comparing a gift certificate with a copay reduction (1.80) and preference comparing cash added to paycheck with copay reduction (0.60). Based on those results, we calculate an inferred preference for gift certificate to cash added to paycheck ($1.80 - 0.60 = 1.20$). MTM = medication therapy management.

It was anticipated that participants would prefer an up-front incentive to encourage engagement in the MTM program. We also expected a preference for a more “hedonic” incentive, such as a gift certificate, to an equivalent amount added to a paycheck. This preference was what MTM-naive participants reported. This finding affirms previous research that suggests the use of delayed incentives are typically discounted by participants and require increased values over up-front incentives. A discount on future medication copayments inherently requires potential participants to be willing to receive a delayed incentive, as well as the information necessary to calculate or estimate the value of a per prescription copay reduction incentive and interpret the value relative to lump sum incentives.

On the other hand, MTM-experienced participants strongly preferred a copay reduction over other incentive options. The results suggest that a participant already enrolled in an MTM program that included a copay reduction incentive is better able to estimate the value of the proposed copay reduction. The results also suggest that those participants who have not experienced the program and have had no previous copay reductions are likely to place lower value on such an incentive.

It appears that for MTM-naive participants, an immediate reward was the primary driver of their behavior. They reacted positively to a \$100 gift certificate over any other option. The positive hedonic value of an immediate \$100 gift certificate was strongly preferred even to \$100 added to their paychecks, possibly because money added to the paycheck is often mentally accounted for in utilitarian terms (e.g., money that will go towards bills) instead of as a windfall (money I can spend on something fun for myself).^{25,29} By emphasizing the positive benefits of the MTM service, it is also possible that the gift certificate complemented the benefits of the service such that the participants felt they were doing something good for their long-term health, while still doing good for themselves in the short run.³⁰

Conversely, MTM-experienced participants showed consistent preferences, with copay reductions as the preferred form of incentive. MTM-experienced individuals apparently had a clear notion of the value of the different incentive options to them personally and so were able to report perfectly consistent preferences when comparing all 3 alternatives 2 at a time (Figure 2C). MTM-experienced participants may have

been better able to identify the value of a regular copay reduction and the monetary superiority of the copay reduction to the financial incentives. This finding is of particular interest because the 2 groups did not significantly differ in their self-reported spending on copays over the previous 6 months (MTM naive = \$280.86 vs. MTM experienced = \$355.45; $P=0.35$). It is possible that the MTM experience reinforced the cost of medications and an individual's copay responsibilities, making the MTM-experienced participants more "economically rational" in their incentive preferences.

The study results suggest that copay reductions offered as an incentive are unlikely to attract new patients to MTM appointments but are a valuable incentive to keep participants in the MTM program. Participants should be attracted to the program using hedonically strong incentives such as gift certificates or perhaps a chance to win a fun product or experience, while enrolled MTM participants should be offered a copay reduction as a way of keeping them engaged with the program.³¹

A prominent characteristic that was observed within the results of this research is the nearly universal preference for gift certificates over a delayed paycheck incentive of equal value. The observed preference for gift certificates over money added to the paycheck is consistent with research showing that people prefer hedonic rewards to utilitarian rewards.³² The justification for this preference is that when individuals make decisions regarding acquisitions or gains they tend to prefer items that enhance their social position or satisfy a personal desire (i.e., a want). This practice is the opposite of a utilitarian-based decision that more often will satisfy a need and is the predominant controlling force when an individual is faced with a forfeiture or loss-based situation.

Therefore, when an individual is faced with selecting an incentive that would bring personal gain, they will prefer an incentive that allows them to obtain a hedonic reward. In addition, because of the inherent restrictions associated with gift certificates (i.e., they can only be redeemed with the merchant issuing the certificate), the individual is prevented from the mental accounting decision as to whether the "new" funds should be spent on groceries or a personal gift. Based on this understanding, if a program sponsor desired to offer an incentive to participate in an MTM program, the sponsor could expect enhanced valuations of a gift certificate-based incentive program compared with a payment added to a paycheck or direct deposit. To further enhance the valuation of the incentive program, sponsors should select gift certificates from merchants that their patient populations would associate with the greatest hedonic value based on the associated gift certificate value. That is, a \$50 gift certificate toward the purchase of a new car (merchant of greatest hedonic value) would not yield the greatest value because of the inability to procure a reward based on the incentive value (i.e., you cannot purchase a new car for \$50).

Limitations

The focus of this study was to ask participants about their perceived preferences regarding various incentive options in order to engage in an MTM program. Because of the nature of the study, participant perceptions have not been evaluated with a prospective study that tested each incentive. Likewise, we also acknowledge that the generalizability of our findings is limited because of the sample size and demographic of the study population. In addition, evaluating incentive preferences based on self-reported out-of-pocket costs associated with copayments in the previous 6 months was problematic because of the large range of responses (\$0 to \$1,500.) This suggests that participants had difficulty recalling this amount. Also, the study was not able to directly compare the preferences of participants based on number of chronic prescription medications. This data were not available and could potentially have served as a confounding factor that was not evaluated. Finally, the small sample size and reporting of age in groups instead of actual age limited our ability to better analyze the effect of age on incentive preferences.

Conclusions

The results of this study suggest that selection of incentive format may depend on the goal of the incentive. The use of gift certificates, a hedonic reward, was preferred by MTM-naive patients, which suggests that gift certificates may be preferred when targeting new patient enrollment in an MTM program. Conversely, MTM-experienced patients preferred a copay reduction program, which suggests that reduction programs may be preferred for initiatives targeting individuals after they have enrolled in an MTM program.

The study results also suggest that the availability of multiple forms of incentives would likely result in the greatest success in attracting new patients, as well as keeping those already enrolled. Further research is needed to evaluate the economic feasibility of using incentive programs to promote uptake and continuation of MTM services. Also, future research is needed to evaluate differences between specific gift certificate merchants, varying levels of each incentive, and factors likely to affect incentive preference.

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DISCLOSURES

No outside funding supported this study. The authors have no conflicts of interest to disclose.

All authors contributed to study concept and design. Cernohous and Vaidyanathan collected the data, and Tomaszewski took the lead in data interpretation, along with Cernohous. The manuscript was written and revised primarily by Tomaszewski, along with Cernohous and Vaidyanathan.

REFERENCES

1. Yen L, McDonald T, Hirschland D, Edington DW. Association between wellness score from a health risk appraisal and prospective medical claims costs. *J Occup Environ Med.* 2003;45(10):1049-57.
2. Warner KE. Wellness at the worksite. *Health Aff (Millwood).* 1990;9(2):63-79.
3. Wang PS, Beck A, Berglund P, et al. Chronic medical conditions and work performance in the health and work performance questionnaire calibration surveys. *J Occup Environ Med.* 2003;45(12):1303-11.
4. Taitel MS, Haufle V, Heck D, Loeppe R, Fetterolf D. Incentives and other factors associated with employee participation in health risk assessments. *J Occup Environ Med.* 2008;50(8):863-72.
5. Jeffery RW, Wing RR, Thorson C, et al. Strengthening behavioral interventions for weight loss: a randomized trial of food provision and monetary incentives. *J Consult Clin Psychol.* 1993;61(6):1038-45.
6. Volpp KG, Troxel AB, Pauly MV, et al. A randomized, controlled trial of financial incentives for smoking cessation. *New Engl J Med.* 2009;360(7):699-709.
7. Finkelstein EA, Brown DS, Brown DR, Buchner DM. A randomized study of financial incentives to increase physical activity among sedentary older adults. *Prev Med.* 2008;47(2):182-87.
8. Breslow L. A health promotion primer for the 1990s. *Health Aff (Millwood).* 1990;9(2):6-21.
9. Bly JL, Jones RC, Richardson JE. Impact of worksite health promotion on health care costs and utilization. Evaluation of Johnson & Johnson's Live for Life program. *JAMA.* 1986;256(23):3235-40.
10. Stieg J. NDPERS Diabetes Management Program Update. Presented at: the North Dakota Pharmacists Association Annual Convention; Minot, ND; April 3-5, 2009.
11. Stuart B, Hendrick FB, Shen X, et al. Eligibility for and enrollment in Medicare Part D medication therapy management programs varies by plan sponsor. *Health Aff (Millwood).* 2016;35(9):1572-80.
12. Ramalho de Oliveira D, Brummel AR, Miller DB. Medication therapy management: 10 years of experience in a large integrated health care system. *J Manag Care Pharm.* 2010;16(3):185-95. Available at: <http://www.jmcp.org/doi/10.18553/jmcp.2010.16.3.185>.
13. Isetts BJ, Schondelmeyer SW, Artz MB, et al. Clinical and economic outcomes of medication therapy management services: the Minnesota experience. *J Am Pharm Assoc (2003).* 2008;48(2):203-11.
14. Chapman L. Employee participation in workplace health promotion and wellness programs: how important are incentives, and which work best? *N C Med J.* 2006;67(6):431-32.
15. Kane RL, Johnson PE, Town RJ, Butler M. A structured review of the effect of economic incentives on consumers' preventive behavior. *Am J Prev Med.* 2004;27(4):327-52.
16. Claxton G, Rae M, Panchal N, et al. 2014 employer health benefits survey. The Kaiser Family Foundation and Health Research & Educational Trust. September 10, 2014. Available at: <http://kff.org/report-section/ehbs-2014-summary-of-findings/>. Accessed October 11, 2017.
17. Capps K, Harkey J. Employee health and productivity management programs: the use of incentives. June 2008. Available at: http://www.healthcarevisions.net/f/2008_Use_of_Incentives_Survey-Results-2008.pdf. Accessed September 23, 2017.
18. John LK, Loewenstein G, Troxel AB, Norton L, Fassbender JE, Volpp KG. Financial incentives for extended weight loss: a randomized, controlled trial. *J Gen Intern Med.* 2011;26(6):621-26.
19. Mitchell MS, Goodman JM, Alter DA, et al. Financial incentives for exercise adherence in adults systematic review and meta-analysis. *Am J Prev Med.* 2013;45(5):658-67.
20. Paul-Ebhohimhen V, Avenell A. Systematic review of the use of financial incentives in treatments for obesity and overweight. *Obes Rev.* 2008;9(4):355-67.
21. Patel MS, Asch DA, Troxel AB, et al. Premium-based financial incentives did not promote workplace weight loss in a 2013-15 study. *Health Aff (Millwood).* 2016;35(1):71-79.
22. Cahill K, Hartmann-Boyce J, Perera R. Incentives for smoking cessation. *Cochrane Database Syst Rev.* 2015(5):CD004307.
23. Birnholtz JP, Horn DB, Finholt TA, Bae SJ. The effects of cash, electronic, and paper gift certificates as respondent incentives for a web-based survey of technologically sophisticated respondents. *Soc Sci Comput Rev.* 2004;22(3):355-62.
24. Webley P, Lea SEG, Portalska R. The unacceptability of money as a gift. *J Econ Psychol.* 1983;4(3):223-38.
25. Arkes HR, Joyner CA, Pezzo MV, Nash JG, Siegeljacobson K, Stone E. The psychology of windfall gains. *Organ Behav Hum Dec.* 1994;59(3):331-47.
26. Thaler R. Mental accounting and consumer choice. *Marketing Science.* 1985;4(3):199-214.
27. Lynch JG, Zauberman G. Construing consumer decision making. *J Consum Psychol.* 2007;17(2):107-12.
28. Lynch JG, Zauberman G. When do you want it? Time, decisions, and public policy. *J Public Policy Mark.* 2006;25(1):67-78.
29. Raghurir P, Srivastava J. Monopoly money: the effect of payment coupling and form on spending behavior. *J Exp Psychol Appl.* 2008;14(3):213-25.
30. Strahilevitz M, Myers JG. Donations to charity as purchase incentives: how well they work may depend on what you are trying to sell. *J Consum Res.* 1998;24(4):434-46.
31. O'Curry S, Strahilevitz M. Probability and mode of acquisition effects on choices between hedonic and utilitarian options. *Market Lett.* 2001;12(1):37-49.
32. Dhar R, Wertenbroch K. Consumer choice between hedonic and utilitarian goods. *J Marketing Res.* 2000;37(1):60-71.