

Increasing Appropriate Vaccination: Client or Family Incentive Rewards (2011 Archived Review)

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Review Summary

Intervention Definition

Client or family incentive rewards are used to motivate people to obtain recommended vaccinations. Rewards may be monetary or non-monetary, and they may be given to clients or families for keeping an appointment, receiving a vaccination, returning for a vaccination series, or producing documentation of vaccination status. Rewards are typically small (e.g., food vouchers, gift cards, lottery prizes, baby products). Incentive reward programs are distinct from interventions that increase access to vaccination services (e.g., the provision of transportation or child care, the administration of vaccinations at no or reduced cost to clients).

Summary of Task Force Recommendations and Findings

The Community Preventive Services Task Force recommends client or family incentive rewards based on sufficient evidence of effectiveness in increasing vaccination rates in children and adults. Evidence on effectiveness is considered sufficient based on results from six studies that evaluated incentive awards alone or in combination with additional interventions.

About the Interventions

Following are the types and values of incentive rewards used in the review.

Government payments

- One time payment of \$208 AUD and child care assistance (1 study: Australia)

Lottery prizes

- Grocery vouchers (\$50)
- Monetary prizes (\$175)

Gift cards

- Baby products (\$10)

Food vouchers and baby products

- Combination of the above

Results from the Systematic Review

The Task Force finding is based on evidence from a Community Guide systematic review published in 2000 (search period 1980-1997) combined with more recent evidence (search period 1997-2009). The systematic review was conducted on behalf of the Task Force by a team of specialists in systematic review methods, and in research, practice, and policy related to increasing appropriate vaccination.

Six studies with seven study arms qualified for the review. Most of the studies evaluated incentives used in combination with additional intervention components.

- Overall change in vaccination rates: median increase of 8.5 percentage points (interquartile interval [IQI]: 6 to 18 percentage points; six studies, seven study arms)

- Change in vaccination rates when incentive rewards were combined with additional interventions: median increase of 7.0 percentage points (range of values: 3 to 38 percentage points; five studies)
 - The contribution of incentive rewards to this increase could not be determined.
- Client or family incentive rewards were effective in increasing vaccination rates when implemented in public health settings (e.g. public health clinics and urban community clinics). Several of these programs coordinated efforts with both public and private partners.
- Incentive rewards were effective when delivered to adults (influenza) and families with children (childhood series).

Economic Evidence

The updated economic review included nine studies. Monetary values are reported in 2009 U.S. dollars.

- Incentives included small value lotteries, gift certificates, cash rewards, baby products, child care, maternity benefits, or a combination of these.
- The median estimated cost per person was \$29.07 (IQI: \$11.43 to \$238.45; 6 studies).
 - Mailed reminders with lottery programs were the least expensive.
 - One program that offered material incentives and included comprehensive outreach, home visits, or other activities was the most expensive. With this study removed, the median and IQI were \$20.11 and \$8.95 to \$89.84, respectively.
- The median estimated cost for each person who was up-to-date with recommended vaccinations was \$60.40 (IQI: \$17.58 to \$171.32; 6 studies).
- One study from Germany showed a cost-savings of \$121 per person immunized for influenza over a two year period.

Task Force Finding and Rationale Statement

Intervention Definition

Client or family incentive rewards are used to motivate people to obtain recommended vaccinations. Rewards may be monetary or non-monetary, and they may be given to clients or families for keeping an appointment, receiving a vaccination, returning for a vaccination series, or producing documentation of vaccination status. Rewards are typically small (e.g., food vouchers, gift cards, lottery prizes, baby products). Incentive reward programs are distinct from interventions that increase access to vaccination services (e.g., the provision of transportation or child care, the administration of vaccinations at no or reduced cost to clients).

Task Force Finding (April 2011)

The Community Preventive Services Task Force recommends client or family incentive rewards based on sufficient evidence of effectiveness in increasing vaccination rates in children and adults. Evidence on effectiveness is considered sufficient based on results from six studies that evaluated incentive awards alone or in combination with additional interventions.

Rationale

The Task Force considered evidence from six studies with seven study arms (search period January 1980-November 2009). Overall, the absolute median change in vaccination rates was an increase of 8.5 percentage points (interquartile interval: 6 to 18 percentage points). Two study arms that provided an assessment of the effectiveness of client incentive rewards alone showed similar changes in vaccination rates (8.5 and 9.0 percentage points). In the five remaining study arms, incentive rewards (most often small gifts or food vouchers) were combined with additional interventions, and the contribution of the incentive reward to the overall improvement in vaccination rates could not be determined.

The studies included in this review evaluated programs conducted primarily in public health settings, although several involved coordinated efforts with both public and private partners. Targeted client populations included adults as well as families of children. The vaccines delivered in these programs included seasonal influenza, and vaccines recommended as part of the childhood series. The Task Force considers the evidence to be applicable to the range of settings, and vaccines recommended for children and adults.

The type of incentive reward offered to clients included the following: government payments (i.e., of \$208 AUD and childcare assistance), lottery prizes (i.e., \$50 grocery voucher or \$175 in monetary prizes), gift cards (i.e., \$10 for baby products), baby products and food vouchers.

Incentive rewards may provide additional benefits, such as increasing contact between clients and their health care providers, thereby providing opportunities for other preventive care interactions. On the other hand, incentive rewards may be considered as coercive with the potential to influence the process of informed decision making by clients. Rewards also may have only a short term effect on motivations to obtain vaccinations or to maintain up-to-date status.

Additional implementation and evaluation research could focus on the independent effects of incentive rewards, and examine the relationship between the value of the reward and effectiveness. Most of the included studies examined the use of incentive rewards on vaccination rates for children, so additional research could examine the use of these interventions for vaccinations recommended for adolescents and adults.

Disclaimer

The findings and conclusions on this page are those of the Community Preventive Services Task Force and do not necessarily represent those of CDC. Task Force evidence-based recommendations are not mandates for compliance or spending. Instead, they provide information and options for decision makers and stakeholders to consider when determining which programs, services, and policies best meet the needs, preferences, available resources, and constraints of their constituents.

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