Increasing Appropriate Vaccination: Reducing Client Out-of-Pocket Costs for Vaccinations (2008 Archived Review)

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Review Summary

Intervention Definition

Reducing out-of-pocket costs to families for vaccinations or administration of vaccinations can be implemented by paying for vaccinations or administration, providing insurance coverage, or reducing copayments for vaccinations at the point-of-service.

Summary of Task Force Recommendations and Findings

The Community Preventive Services Task Force recommends interventions that reduce client out-of-pocket costs based on strong evidence of effectiveness in improving vaccination rates. The effectiveness of these interventions has been demonstrated:

1. In children, adolescents, and adults
2. In a range of settings and populations
3. When applied in varying levels of scale from individual clinical settings to statewide programs to national efforts
4. Whether used alone or as part of a multi-component intervention

About the Systematic Review

The Task Force finding is based on evidence from a Community Guide systematic review published in 2000 (19 studies, search period 1980-1997) combined with more recent evidence (15 studies, 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. It updates and replaces the previous Task Force finding for Reducing Client Out-of-Pocket Costs for Vaccinations.

Results

Updated Review (search period 1997-2009)

Of the 15 additional studies identified in the updated search period, 11 provided common measurements of change in vaccination rates.

- Median increase in vaccination rates:
  - Overall: 22 percentage points (IQI: 6 to 33 percentage points; 11 studies)
  - Reducing client out-of-pocket costs alone: 28 percentage points (IQI: 2 to 47 percentage points; 6 studies)
  - Reducing client out-of-pocket costs with additional components: 20 percentage points (IQI: 6 to 20 percentage points; 5 studies)
  - Although the four remaining studies couldn't be combined with those above, they also showed increases in vaccination rates.
- Reviewed studies evaluated the effectiveness of reducing client out-of-pocket costs in a range of different client and provider populations, healthcare settings, and for different vaccines.

Previous Review (search period 1980-1997)

- Median increase in vaccination rates: 15 (Interquartile interval [IQI]: 2 to 29 percentage points; 13 studies)
- Five studies provided different measures of change in vaccination rates with mixed results.

Economic Evidence

One study from the updated search period qualified for the economic review. Monetary values are reported in 2009 U.S. dollars.

- The study modeled the effect of eliminating out-of-pockets costs for vaccinations to children born in the state of Georgia during 2003.
    - The estimated percentage of children who would have been up to date with their vaccinations increased from 78.4% to 85.4%.
    - Such a program would have cost $22.27 million for the 129,167 children born that year ($172.41 per child).

Task Force Finding and Rationale Statement

Intervention Definition

Reducing out-of-pocket costs to families for vaccinations or administration of vaccinations can be implemented by paying for vaccinations or administration, providing insurance coverage, or reducing copayments for vaccinations at the point-of-service.

Task Force Finding (October 2008)

The Community Preventive Services Task Force recommends interventions that reduce client out-of-pocket costs based on strong evidence of effectiveness in improving vaccination rates. The effectiveness of these interventions has been demonstrated: (1) in children, adolescents, and adults; (2) in a range of settings and populations; (3) when applied in varying levels of scale from individual clinical settings to statewide programs to national efforts; and (4) whether used alone or as part of a multi-component intervention.

Rationale

In 1997 the Task Force found strong evidence of effectiveness for interventions that reduce out-of-pocket costs. Based on the findings of this update, the Task Force reaffirms their original recommendation.

The previous review (1980-1997) identified 19 studies. Summary effect estimates were determined from 15 study arms in 13 studies. The overall median absolute increase in vaccination rates was 15 percentage points, with an interquartile interval (IQI) of 2 to 29 percentage points. Six study arms evaluated reducing client out-of-pocket costs when implemented alone (median absolute increase of 10 percentage points), and 9 study arms examined reducing client out-of-pocket costs as part of a multi-component strategy (median absolute increase of 16 percentage points).

Fifteen additional studies (1997–2007) were identified for the 2007 update. Eleven studies provided a common measurement of change in vaccination rates. Their overall median absolute increase in rates was 22 percentage points (IQI: 6 to 33 percentage points). Six studies examined the impact of reducing client out-of-pocket costs alone (median absolute increase of 28 percentage points) and 5 studies examined reducing client out-of-pocket costs as part of a multi-component strategy (median absolute increase of 20 percentage points).

The reviewed studies evaluated the effectiveness of interventions that reduce client out-of-pocket costs in a range of client and provider populations and settings.

No evidence of harms was identified in either the 1997 or 2007 review.

The results indicate that reducing client out-of-pocket costs remains an effective intervention option for consideration in a wide range of clinical settings and populations. In the United States, the ability of health care systems and providers to implement these interventions may depend on the adequacy and timeliness of reimbursement for the costs of the vaccines, storage, and administration.

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