Measuring Price Transparency in Hospital Settings: A Systematic Review

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4/30/2019
Background
Definition of Price Transparency

The definition by Institute of Medicine (IOM):

Publicly available price information, in a reliable, and understandable manner.
Scope of Price Transparency

- Insurers making available to their subscribers the rates that they have negotiated with providers.
- Government agencies publicly reporting the average prices for common health care services.
- Hospital publicizing their usual charges for particular health care services.
Significance of Price Transparency

- High hospital expenditures
- Variation of price across hospitals
- Lack of price transparency

Hard to make value-based decision for individuals in hospital settings

Federal & States efforts

Improvement in price transparency in hospital setting??

Need to measure
Objective

To evaluate the availability of studies measuring price transparency in health services in the United States.
AHRQ suggested frameworks for determining research gaps by systematic reviews

Identification of gap

PICOS elements

Reason of gap
Level of gap
Patient
Intervention
Competitor
Outcome
Setting

Conceptual Framework

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Methods
Inclusion & Exclusion Criteria

Exclusion
- Not in the United States
- Not in hospital settings
- Before 1997

Inclusion
- Measured price transparency
Procedure

- HSRProj Online Interface
- HSRProj Excel File
- Other Databases
Procedure- HSRProj Online Interface

Abstract Search Terms
- Transparen*
- Price
- Cost
- Hospital*

Title Search Terms
- Transparen*
- Price
- Cost
- Hospital*

MeSH Terms
- Fees and Charges
- Health Expenditure
- Inpatients

((title:(price)) OR abstract:(price)) OR (title:(cost)) AND(cost) OR(mesh:(fees and charges)) OR (mesh:(healthcare expenditures)) )
AND ((title:(transparen*)) OR abstract:(transparen*)) AND ((title:(hospital*)) OR abstract:(hospital*) OR mesh:(inpatients) )

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Procedure - HSRProj Excel File

<table>
<thead>
<tr>
<th>• Using the Excel built-in Search Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>• All field Search Term</td>
</tr>
<tr>
<td>• Price transparency</td>
</tr>
<tr>
<td>• Cost transparency</td>
</tr>
</tbody>
</table>
Procedure - Other Database

- Rationale of using other sources: No abstract found in HSRProj database
- Online search databases (PUBMED, Scopus, and Web of Science)
- Librarian help
- Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)
- For PubMed: Mesh Terms
Procedure - Other Databases

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Number of abstracts identified by using search terms
• N= 8

Number of abstracts included by considering inclusion and exclusion criteria
• N=0

Gap
Preliminary Finding of HSRProj Exel File

Number of available abstracts (version of December 11, 2018 file)
- \( N = 36,219 \).

Number of abstracts identified by using search terms
- \( N = 10 \).

Number of abstracts included by considering inclusion and exclusion criteria
- \( N = 0 \).

Gap
Preliminary Finding of Other Databases

Records identified through database searching (n = 798)
- PubMed = 286, Scopus = 166, Web of Science = 346

Additional records identified through other sources (n = 2)

Records after duplicates removed (n = 538)

Records excluded (n = 489)

Records screened (n = 49)

Full-text articles assessed for eligibility (n = 11)

Full-text articles excluded (n = 2)

Included studies (n = 9)

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Summary of Findings

Included Studies (N = 9)

Design

- Cohort (N=1)
- Cross-section (N = 8)

Data Source

- Secret Shopper (N= 8)*
- Website (N = 2)

Insurance

- HD Insured (N = 2)
- Uninsured (N = 4)
- Mixed of HD Insured & Uninsured (N = 2)

Patient Age

- Pediatric (N=2)
- Adult (N = 5)

Medical Service

- Primary care (N=1)
- Surgery (N=5)
- Diagnostic (N=2)
Discussion
Conducting more studies measuring price transparency
Including insured adults without high deductible
Conducting survey studies on real patients
Measuring comprehensibility and reliability of price data
Measuring price transparency in other settings (e.g. ER)
Implications

For health services researchers
- Need for more studies
- Need for studies in PICOS elements gap

For policy makers
- Need for more state and federal efforts

For hospital and providers
- Need to provide more understandable details
Limitations

**HSRProj online**
- Relying on HSRProj keywords/MeSH

**HSRProj excel**
- Search was based on finding keywords, did not involve semantic analysis

**Other data bases**
- Lack of grey literature (thesis, conference abstract, ...)

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Conclusion

Identified a research gap using 3 strategies

Insufficient knowledge with limited number of studies

Proposed five possible solutions
Sources-1


Sources-2


Acknowledgment

• Advisor: Dr. Usha Sambamoorthi
• Librarian: Anna Crawford
• Pharmaceutical Systems and Policy Department, Pharmacy School, West Virginia University
Thank You