

ELECTRONIC MEDICAL RECORDS IN FAMILY PRACTICE:

What drives physician interest and
how much are they willing to pay?

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COMPETE --The Study

- Computerization Of Medical Practices for the Enhancement of Therapeutic Effectiveness
 - ◀ A three year project to study appropriateness of prescribing of medications in three areas: GI, CVS and MSK disorders
 - ◀ Conducted in a research network of 100 community-based Family Physicians who will use an electronic medical record to capture drug use data
 - ◀ to conduct a controlled trial of academic detailing vs computer-based patient-specific audit and feedback
 - ◀ Investigate impact on efficiency, satisfaction and quality of care, especially influence on prescribing

COMPETE --The Study

- Who is conducting the study?
 - ◀ The Centre for Evaluation of Medicines (CEM)
 - ◀ An Independent Academic Research Institute
 - situated at St. Joseph's Hospital
 - affiliated with McMaster University
 - ◀ The Founding Director is Dr. Stuart MacLeod
 - ◀ The CEM is an evidence-based medicine group who provide consultation to government, industry and academia
 - ◀ Areas of expertise include pharmacoepidemiology, pharmacoeconomics and informatics

The Challenge

- How to get physicians to use Electronic Medical Records on a daily basis
 - ◀ What are the incentives for usage other than money?
- Is it possible to charge them to participate -- generating a 'vested interest' in the EMR?
- If so, what would they be willing to pay and what would they be paying for?

Methodology

- **Recruitment:**

- ◀ 27 Physicians from the Hamilton-Burlington area
- ◀ Randomly chosen from the Southam Canadian Medical Directory database (random table)
- ◀ Asked to participate in a 1-1.5 hour interview at their office for a study on Electronic Medical Records
- ◀ Offered a nominal honorarium to compensate them for their time

Methodology

- **Construction of Benefits Document**

- ◀ Brainstormed a list of benefits that might accrue to a physician using an EMR
- ◀ Grouped under broad headings:
 - 1) Improvements in charting;
 - 2) Access to information for patient care;
 - 3) Improved office efficiencies for clinical work (e.g., patient files not lost, lab data always available in the chart);
 - 4) Societal benefits (e.g., health services research)
- ◀ A description of the computer system and EMR along with the benefits of having these were given to study subjects

Methodology

- **Construction of Frequently Asked Questions Document**
 - ◀ When the description of the software, hardware and benefits were given to physicians participating in the study, they brought up many objections, barriers and questions to achieving those benefits
 - ◀ We documented their questions and developed a Frequently Asked Questions document
 - ◀ This document was used by the interviewers to answer questions about the barriers and objections so they could get information about willingness to pay

Methodology

- **The Four-Question Method:**

- ◀ Physicians were asked to quote four prices to be paid on a monthly basis:
 - 1) that is too expensive to consider, whatever its excellence
 - 2) that is expensive, but still a possible purchase
 - 3) that is inexpensive, but probably still of acceptable quality
 - 4) that is so inexpensive that it would be of little or no value

Methodology

- **Pricing Scenario Method:**

- ◀ Subject physicians were given three price options with three different payment methods
- ◀ Options were presented randomly to minimize any effect of a choice on the subsequent choice
- ◀ At each price point, physicians were asked to state whether they would:
 - 1) Definitely buy
 - 2) Probably buy
 - 3) May or may not buy
 - 4) Probably not buy
 - 5) Definitely not buy

Methodology

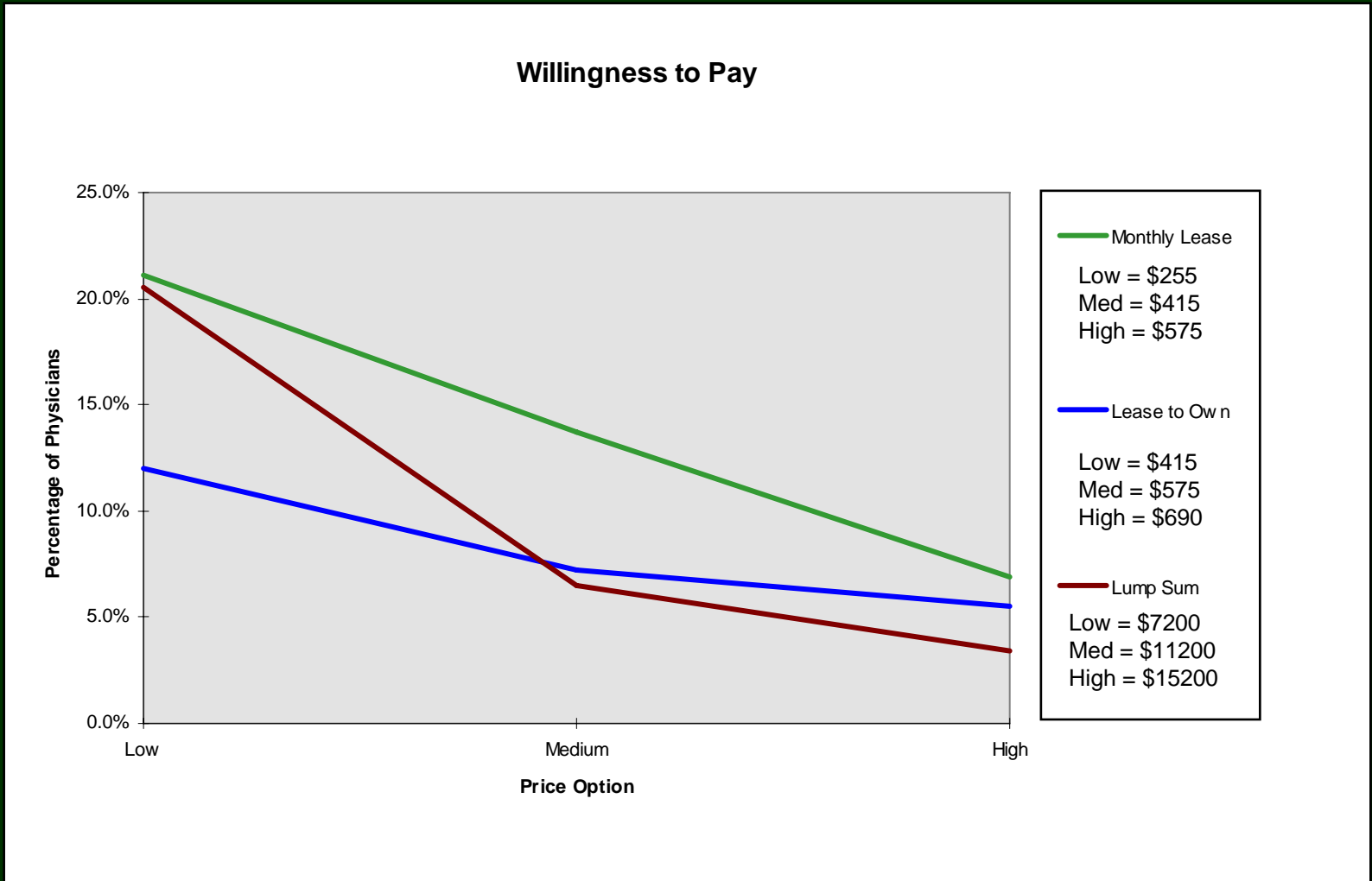
- **Drivers of Physician Interest**
 - ◀ Subject physicians were asked to ‘vote’ for those benefits that were most compelling to them and for which they would be most willing to pay
 - They were asked to distribute 100 points over the four broad benefit categories presented to them

Results --Drivers of Interest

Average % of Votes	Benefit	Key Attributes
34	In-Office Efficiencies	<ol style="list-style-type: none"> 1. Files available all the time, never lost 2. Reduction of clerical cost 3. Efficient use of space
27	Patient Information	<ol style="list-style-type: none"> 1. Access individual patient files 2. Access to other MD's files (for call) 3. Direct lab results
24	Templates	<ol style="list-style-type: none"> 1. Immediate drug info. 2. Optimal prescribing guidelines 3. Guided chart making (no typing, faster charting)
15	Societal Benefits	<ol style="list-style-type: none"> 1. Future links with pharmacies, hospitals, homecare 2. Contribute to DUR

Table 1: Drivers of physician interest in purchasing EMRs

Results --Willingness to Pay



Limitations of the Study

- It was difficult to describe the benefits of EMRs to physicians who had never heard of them before
- Some benefits which are provided were not included in the original benefits document
- Most physicians have not seen or heard of an EMR before --creating a barrier to acceptance and hence willingness to pay

Conclusion

- Family physicians, by and large, are not interested in purchasing EMRs
- Those who are interested place a relatively low value on them
- Improved office efficiency and better access to medical information are the main drivers of interest in EMRs
- Physicians who are interested in EMRs would be willing to pay between \$255 and \$415 per month to achieve the benefits of computerization