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# Michigan Rural Physician Telemedicine Adoption: A Planned Behavior Analysis

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## Presentation Overview

- What is a Planned Behavior Analysis
- Study Overview
- Results
- Recommendations
- Future Research Needs
- Conclusions

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    graph LR
      BB[Behavioral Beliefs] --> A[Attitudes]
      NB[Normative Beliefs] --> SN[Subjective Norms]
      CB[Control Beliefs] --> BC[Behavioral Control]
      A --> I[Intention]
      SN --> I
      BC --> I
      I --> B[Behavior]
  
```

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.

- Planned Behavior is an influential model of behavioral prediction.
- Commonly used to design intervention plans based on factors relevant to the specific behavior in question.
- Operates under the assumption that people do what they intend to do
- Intention is function of attitudes, norms, and control

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## Study Overview

- In collaboration with MATTeR (Sally Davis, Rose Young, JoAnn Manty and David Smith) and the Michigan Center for Rural Health (John Barnas and Steve Shotwell)
  - Mailed 1000 surveys to a random selection of physicians in the 52 rural Michigan counties
  - Data collection still underway, but preliminary results are based on approximately 90 returned surveys to date

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## Sample Characteristics

- Mean Age, 53
- 74% Male, 26% Female
- Time in Practice: 75% from 10 to 30 years
- Type of Practice: 29% Single Physician Practice; 45% Multi-physician practice; 26% Hospital Employed
- 49% Primary Care; 51% Specialty Care

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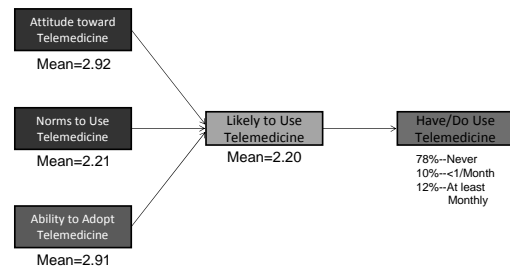
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## Physician Use and Perceptions of Telemedicine



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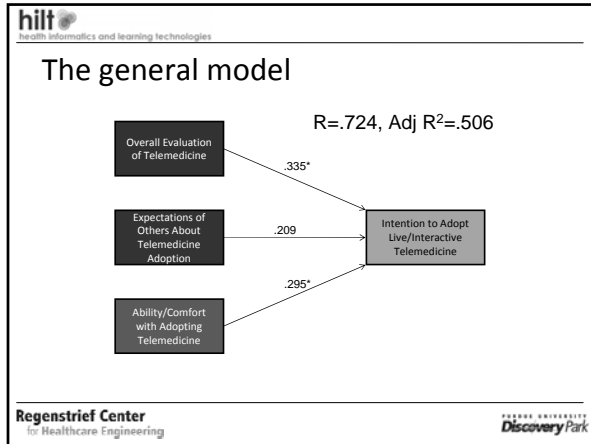
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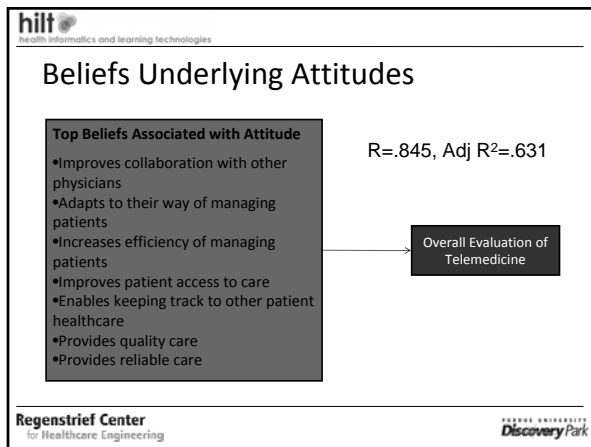
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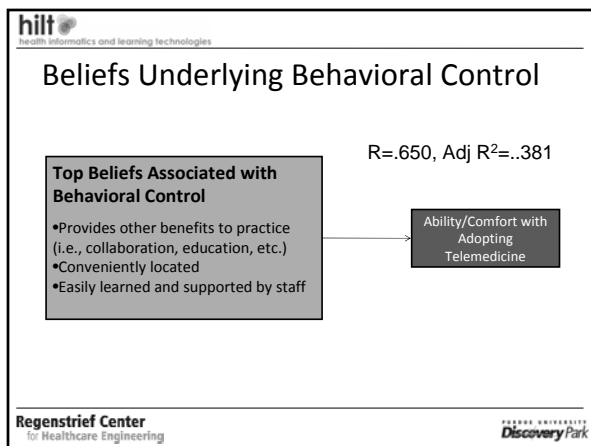
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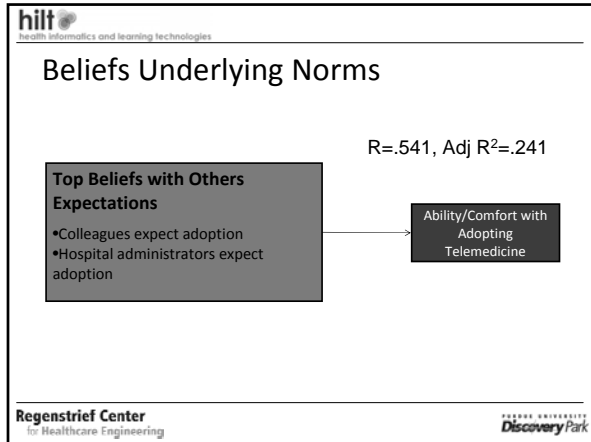
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## Results Summary

- Most Michigan rural physicians are not currently using telemedicine to a substantial degree
- Most Michigan rural physicians do not expect to be adopting telemedicine in the future
- These findings appear to be consistent across specialty areas, practice types, hospital affiliations, and other physician characteristics

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## Results Summary, Cont'd.

However, telemedicine can have more impact in Michigan, if...

- **Attempts are made to reinforce the positive impact telehealth can have on**
  - Increasing physician to physician collaboration in patient care
  - Improving the efficiency of patient management
  - Extending patient access to care
- **Telemedicine implementations are made in a way that**
  - Provide value beyond specific telemedicine applications
  - Minimize impact on current physician practices/processes
  - Have minimal impact of staff training and support responsibilities
- **Physicians understand the what others are gaining from the use of telemedicine, which involves**
  - Making the case to administrators about the organizational value of supporting telemedicine initiatives
  - Sharing the success stories of peers who are incorporating telemedicine into their practices

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## Future Research Needs

- Examine more closely the differences in implementation needs of primary care versus specialty care.
- Explore the how to cost-effectively implement technology in smaller, isolated practices.
- Examine the needs of urban practitioners to rural practitioners regarding the value/impact of telemedicine
- Study the barriers/needs of hospital decision and other health professionals on telemedicine
- Compare Michigan to other regions/states
- Extend this sort of analysis to other health-related IT initiatives that may also impact rural health practice
- Look at other models of technology adoption that can shed more light on processes underlying health IT adoption

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## Questions and Comments?

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