



# Willingness to pay for online physician services

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# Aim and background of the study

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- Little information was found on the extent of exchange in online health services
- Aim of the study was to estimate and explain consumers' willingness to pay for online physician services
- Utilization of results:
  1. estimate the size of the market in e-health services and
  2. provide information for policy makers



# Data

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- Random sample: 1500 individuals in Kuopio area, Finland
- Mailed questionnaires, response rate 51.5%.
- Information on
  1. income (personal income)
  2. distance to a closest physician
  3. gender
  4. age
  5. health (perceived health),
  6. has a computer/does not have a computer
  7. general interest in computer technology



## WTP question

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- *Open-ended question:* Suppose that you or your child contracts a disease. You may visit a physician or obtain the same service through a computer network from your personal computer. What is the maximum amount you would be willing to pay for the online physician service?



# WTP questions

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- *Take-it-or-leave-it question:* Suppose that you or your child contracts a disease. You may visit a physician or obtain the same service through a computer network from your personal computer. Would you be willing to pay for the online physician service  $x$  FIM.
- Value of the bid  $x$  varies between 10 FIM - 300 FIM



# Hypothesis

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- WTP is increases (+) or decreases (-) as
  1. income (+)
  2. distance to a nearest physician (+)
  3. health state (+)
  4. gender (+/-)
  5. age (-)
  6. comp (+)
  7. interest (+)changes.



# First model

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- $WTP_i = \beta_1 + \beta_2' X_i + \varepsilon_i$ , where
- $X = \{\text{income, distance, gender, age, comp, health, interest}\}$
- Linear model, OLS techniques



## Second model

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- Frequency of  $WTP = 0$  is quite high (46%).
- Tobit model:
  1.  $WTP_i^* = \beta_1 + \beta_2'X_i + \varepsilon_i$ , where  
 $WTP_i = 0$ , if  $WTP_i^* < 0$
  1.  $WTP_i = WTP_i^*$ , if  $WTP_i^* > 0$ , and
  2.  $\varepsilon$  is assume to be normally distributed.
  3.  $X$  contains the same variables as above.



# Results, OLS

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- Statistically significant explanatory variables: income, distance, distance\*age, interest.
- Impact of the variables on WTP: income (+), distance (+), distance\*age (-), interest (+).
- Coefficient of determination,  $R^2 = 0.22$ .
- Mean WTP: 11 €'s



# Results, Tobit model

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- Statistically significant explanatory variables: income, distance, age, interest.
- Impact of variables on WTP: income (+), distance (+), age (-, not significant) interest (+).
- Mean WTP: 11 €'s