Risk Pooling and Redistribution in Health Care: Social Drug Insurance Schemes in Russia

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Structure of Presentation

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- The Russian Case: social drug insurance
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Background: attitudes and behaviours

- Population **attitudes** & **behaviours** are an overlooked dimension of health policy reform.
- Policy, whatever form it takes, runs into attitudes and behaviours.
- Crucial to understanding how policy is received/responded to at the individual level and therefore:
  - What it should be
  - And how it should be framed

Background: attitudes and behaviours

- Relevant population **attitudes** & **behaviours** include:
  - Social solidarity
  - Perceptions of fairness
  - Views on rights and responsibilities
  - Attitudes to risk
  - Discount rates (e.g. how the future is valued)
  - Form of the utility function
  - Tendency towards loss aversion
  - Understanding of probabilities
- All these factors serve to shape how and whether policy will work

Attitudes and Behaviours: Health Reform and Financing

- Health financing requires risk pooling and some subsidising of the costs of the unhealthy by the healthy
- If progressive, the wealthier must subsidise the costs of the poor
- Response (i.e. attitudes and behaviours) of the population to different risk pooling mechanisms therefore important
- Some knowledge of population attitudes to different risk pooling mechanisms, but little in Russia
- Russia presents an interesting experiment in which a mixed and rapidly evolving history of socializing forces has served to shape the populations political and ideological beliefs.

The Russian case: drug insurance

- Access to drugs identified as major weakness within recent health reforms
- No universal reimbursement for outpatient drug use (3-4% of the population get free drugs in outpatient care)
- Drug reimbursement program: covers 12 mln people; only 3,7 mln choose drugs
- 7 nosologies program: around 100,000 are eligible
- Private insurance (7-12% of the total population)

The Russian case: drug insurance

- Per capita drug consumption remains low (USD 140), 3-5 times behind Europe and the USA.
- VCIOM (Russian Public Opinion Research Centre) poll:
  - 88% pay out-of-pocket
  - 58% drugs are an 'important part of their budget'
  - 19% report that they are unable to afford the drugs they need

The Russian case: drug insurance

- Compulsory Health Insurance (CHI) Fund prepared a draft concept for drug insurance in 2008
  - To cover all citizens insured in CHI system.
  - Starting point for further discussion
- State Program for Health Care Development 2020 proposed implementation of drug insurance
- Drug insurance scheme involves an individual contributing a sum of money towards the insurance scheme, allowing the purchase of prescribed drugs the next year at a lower price
- *But much ambiguity remains*

The Russian case: drug insurance

- The *a priori* expectation is that individual's approval of *and* willingness to join (WTJ) will be high.
- But, the literature shows that attitudes and WTJ are dependent on a range of factors (socioeconomic, regional, cultural etc).
- And WTJ a risk pooling scheme may not correspond with the willingness to pay (WTP) and the ability to pay (ATP) to join.

The literature

- Many previous studies for middle and low income countries:
  - Income positively related to WTJ
  - Mixed results on adverse selection (i.e. that insurance attracts the unhealthy)
  - Education usually positively associated with WTJ
  - Location can be a significant factor (perhaps smaller communities exhibit more solidarity)
  - The design of the insurance system can matter (framing matters)
  - Family size tends to be positively correlated
  - As too do age and gender

Data and methods

- Survey conducted by Levada Center
- November 2011, 105 questions
- 4001 respondents age 15 and above.
- Representative at a country level and Federal District levels.
- Data collected on rich selection of socioeconomic, health, demographic, regional and attitudinal data
- Including two key questions relating to the introduction of drug insurance in Russia

Data and methods

- **72**: Does a country *need a system of drug insurance. If yes, should it be mandatory or voluntary?*

  1) Yes, it does and it should be voluntary;

  2) Yes, it does and should be mandatory (if chosen, go to question 75);

  3) No, it does not (if chosen, go to question 75);

  4) Cannot answer.

- ***73**:Would you participate in the described insurance?*

  1) certainly yes

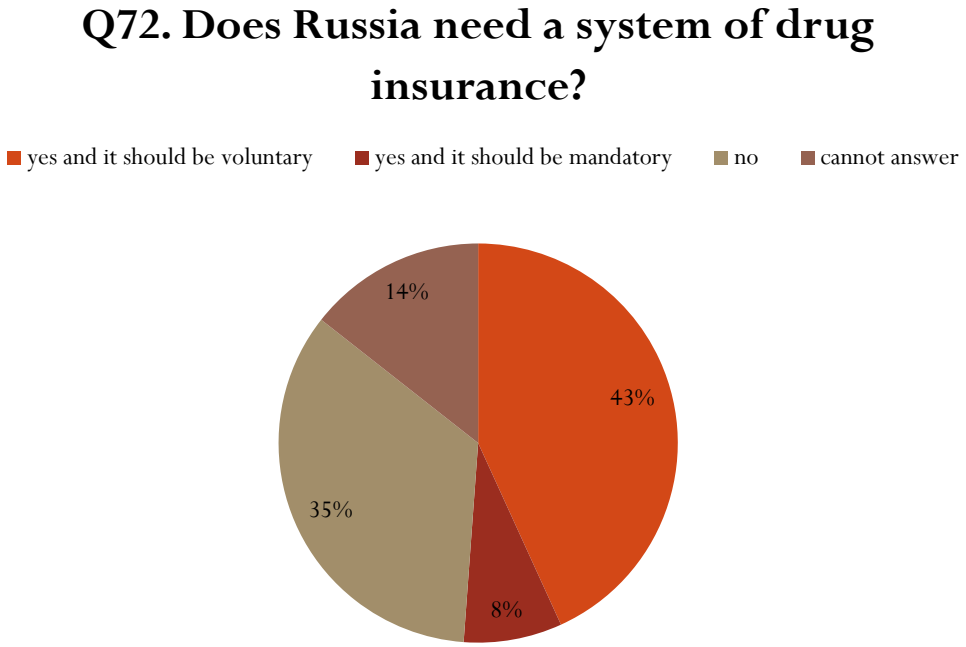
  2) rather yes than no

  3) rather no than yes

  4) certainly no

  5) cannot answer

Descriptive Statistics for q72 and q73



- Little support for mandatory insurance
- In q73 (would you participate?) 16% answered that they would certainly participate and 32% indicated that they would probably participate.

Independent variables

- Gender, age categories, education categories, poor health indicator (chronically ill or invalid status), prescription drugs indicator, subjective income indicator (5 categories), indicator for willingness for higher taxes to improve health care, location, settlement size.
  - 48% in bad health
  - 34% on permanent prescription for drugs
  - 25% committed to higher taxes for health care

Three empirical questions

- **Question 1**: What are the socioeconomic and health factors that determine the likelihood of support of introduction of drug insurance (both mandatory and voluntary)?
- **Question 2**: What are the socioeconomic and health factors that determine the likelihood of support of voluntary insurance?
- **Question 3**: What are socioeconomic and health factors that determine willingness-to-join/actual participation in voluntary insurance?

Three empirical questions (1)

- *(1)What are the socioeconomic and health factors that determine the likelihood of support of the introduction of drug insurance (both mandatory and voluntary)?*
- Simple probit model
- Mixed binary variable **drugs_pro** (from q72 and q73)
  - 1= Russia needs a system of drug insurance and it should be mandatory OR would participate in voluntary drug insurance 0=otherwise
    - Taking into account missing observations (n=3169)
    - 41% support the introduction of drug insurance (**drugs_pro** =1)

Three empirical questions (2 and 3)

- *(2)What are the socioeconomic and health factors that determine the likelihood of support of voluntary insurance?*
- *(3)What are the socioeconomic and health factors that determine WTJ voluntary drug insurance?*
- Sample selection in our data. Only people who chose voluntary insurance or could not answer q72 were than asked q73 (2,304)
- Observable and unobservable variables that determine answer to q72 may be correlated to the answers to q73.
  - Zeros in q73 are due to non-response.
  - Absence of stage dominance.
- ***Heckman Selection Model***

The Heckman Model: 2 specifications

- Stage 1 allows us to study attitudes to the introduction of voluntary DI
- Stage 2 allows us to study WTJ voluntary drug insurance
  - Specification 1 (cannot answer group in q73 included)
  - 63% indicate that they are WTJ voluntary DI
  - Specification 2 (the undecided group excluded)
  - 69% indicate that they are WTJ voluntary DI

Results: simple probit (drugs_pro)

- Males less supportive
- Support decreases with age
- Support increases with education (secondary education)
- Top of the income distribution more supportive
- Those on drugs and in bad health also more supportive (adverse selection?)
- Smaller communities are progressively more supportive
- As too are those that believe in higher taxes for health care
- Interaction effects (elderly males and elderly with tertiary education) are more supportive

Results: Heckman model

- Selection matters – as expected
- The identifying instrument behaves as expected and is robust to different specifications
- More educated, high income, younger, unhealthy individuals with a commitment to higher taxation are supportive of voluntary insurance (selection)
- Regular drug consumers; with a commitment to higher taxation, in smaller settlements are more WTJ
- But: higher income and metropolitan respondents less WTJ;
- While education appears not to influence WTJ

Conclusions

- The results of the study demonstrate that important patterns exist in explaining the support for drug insurance policies in Russia.
- In general, in favour: older males, secondary education, drug consumers, unhealthy, higher income, solidarity (smaller settlements)
- By identifying a selection effect in the data we are able to examine separately the characteristics of:
- A) those that are supportive of VI
- B) those that are WTJ, controlling for selection

Policy implications

- A lot of opposition to drug insurance
- Almost total opposition to mandatory drug insurance
- Reasonable numbers supportive of VI and two-thirds of those express a WTJ
- BUT: strong evidence of adverse selection
  - Those that are WTJ, given they are supportive, are those that need to join
  - In other words, there appears to be an absence of understanding of the purpose of insurance (i.e. as a means of offsetting risk)
  - And therefore adverse selection is likely to be a major problem
  - Solutions to which include: mandatory! (experience rating in private system)

Policy implications

- Interesting hints re solidarity:
  - Upper middle class are against joining
  - Smaller settlements exhibit greater solidarity
  - Relatively high (25%) commitment to higher taxes for health care

- In sum, a lot of work needed in communicating the challenges and the possible solutions to the public
- But there is an apparent core of the population committed in one way or another to social insurance.
- Suggestive of the possibility of following a more 'European' style model based on principles of solidarity and civil society.