

# ICDS 2010 Panel

## **Digital Society Trends: Societal Challenges from eHealth to eCommerce via eGovernment**

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# SOCIETAL CHALLENGES IN A DIGITAL WORLD

ICDS 2010 PANEL

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# What are the important issues?

- Preservation and enhancement of Human Rights
- Internet good or bad?
- Depends on how we handle:
  - Digital exclusion
  - Identity in the digital world
  - Privacy
  - Freedom of information

# Digital exclusion

- We need inclusive policies
- What about those not on Internet?
- Digital divide
- This is foremost a political problem
- How to secure the rights of all?
- Regulation, not necessarily formal

# Identity

- On the Internet you can be whoever you like
- What is the impact on democracy?
- Authenticity is a problem, but can be solved by technology
- But, what are the consequences?
  - Insecurity
  - This is why we need to approach the future of Internet through a multidisciplinary approach

# Privacy

- Privacy is at stake.
- How can you protect yourself from defamation on the Internet?
  - When the servers are abroad?
  - When allegations are anonymous?
- Will citizens adjust?



# Freedom of information

- Internet brings great opportunities
- But there are some serious problems..
  - Censorship, blocking of web sites
  - Who decides?

# Conclusion

- We need to do more work on regulation
  - To combat digital exclusion
  - To protect individual from abuse
  - To secure access to information
- There is no easy solution here..
- But you, as experts need to get involved!



***Future Internet and  
implications of the services:  
e-commerce, e-health, e-  
education***

***Borka Jerman-Blažič  
Jožef Stefan institut and Ljubljana University,  
Slovenia***

# *In the Future Internet services are ubiquitous*

- ❖ Software-as-Service
- ❖ Resource-as-Service
- ❖ Interoperability-as-Service
- ❖ (partial) Service-Construction-as-Service
- ❖ Unify business processes and services
- ❖ Business Applications as utilities
- ❖ Anything you want



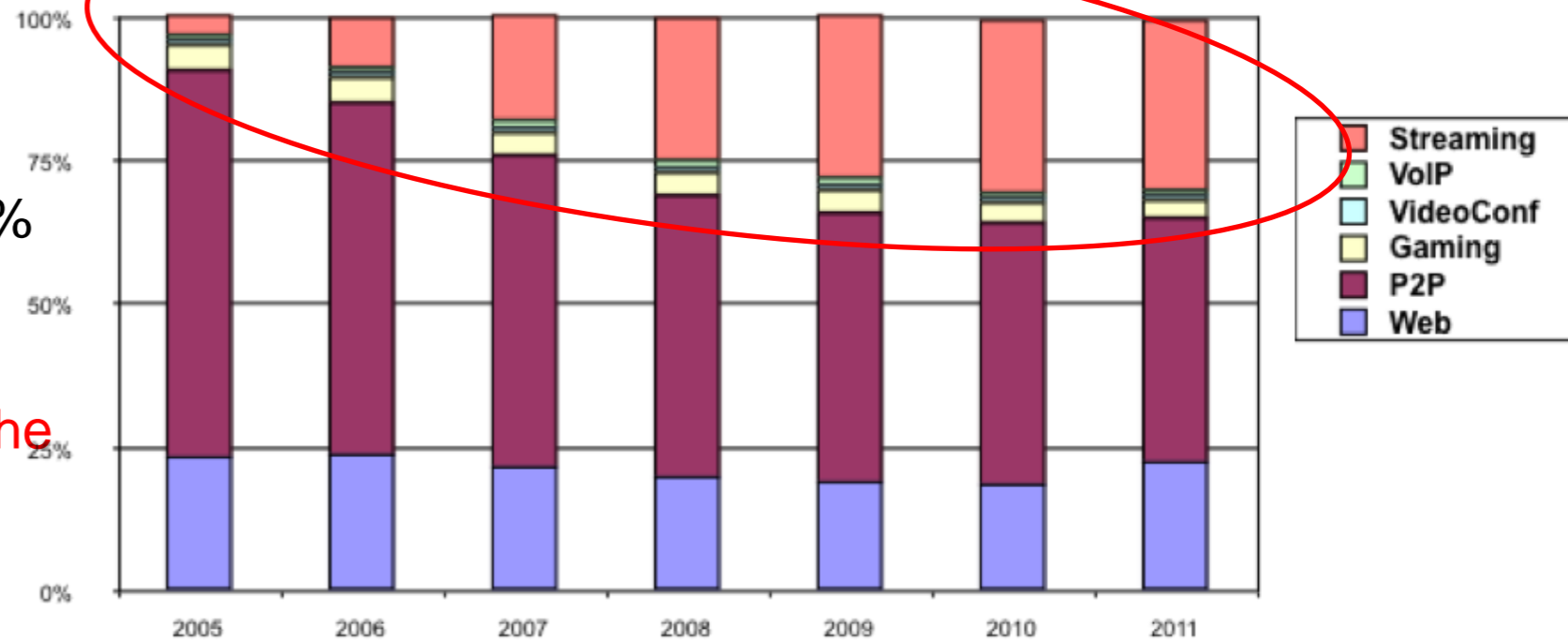
## Some data

- Skype has 400 MIO users in 2009
- 4,5 Bill of mobile phones on the earth
- There are more than 100 000 pieces of program code developed for iPhone
- Facebook has 300 MIO users
- Traffic is growing at 60% per year
- Near future (up to 2011) 50-60% per year
- User penetration in 2008 was 55%, in 2009 is 74% -where is the recession here? (Washington Post, September 200)

## Some income in 2009 in Bill of USD

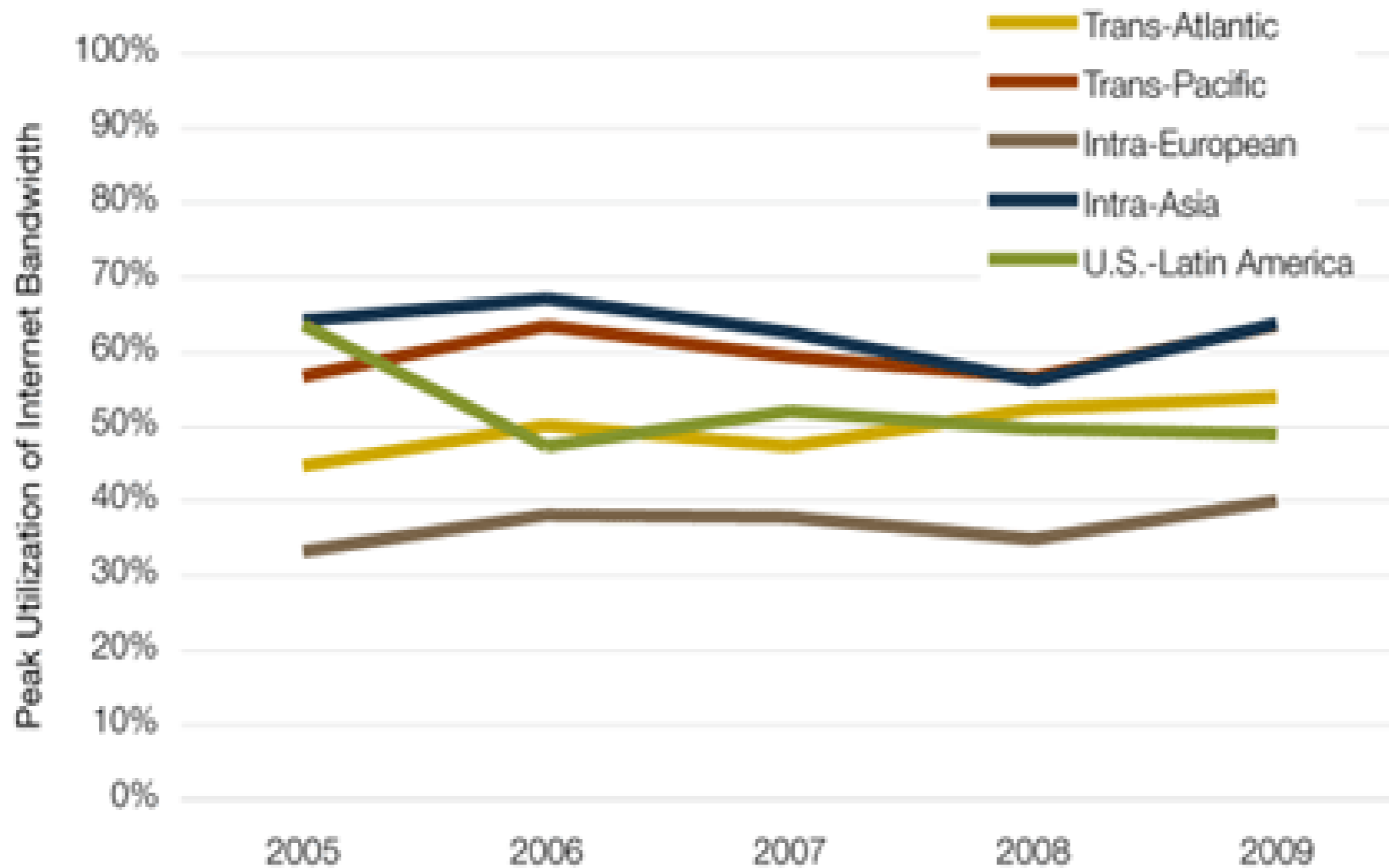
Cisco	20
Microsoft	19
Google	16
Intel	10
Dell	6
Apple	26
China Mobile	18

## Important component of Non Best Effort traffic



Source: "Global IP Traffic Forecast and Methodology", 2006-2011, Cisco 2008

## Global Peak Utilization Rates by Route, 2005-2009



Source: TeleGeography

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# What are the expectations?

- **Users' behaviour is hard to predict even in the classical services**
- Like e-gouvernement and e-health, but it is obvious:
  - **They (users) will be connected any time from different devices**  
→ Connectivity Perceived Value increases
  - **They will ask for different applications with different traffic profiles**  
→ The network must be able to manage all apps with guarantees
- **Reliability and guarantees are required** to manage some services (e.g. emergency calls, corporate services, e-health, etc.)
- **Security and trust are required to be managed, trust becomes major issue!**
- **No place for walled gardens**
  - **None of the most popular Internet applications share the same Application protocol**

# In setting the management scenario for trust & services

## Internet Today

- 1,6 billion users
- More than 30 billion pages (static)
- 30% built by companies
- Only 25.000 “true” web services
- Most of services are in-house or restricted to closed environments (Trust is more manageable)



## Future Internet

- 2-3 billion users
- A web of “frillion” services
- A network of equals
- “Prosumers”
- **Trust is now a major issue!!!!**



# Trust, can we define it and measure it?

## *Definition*

*“Trust of a party A in a party B for a service X is the measurable belief of A in B behaving dependably for a specified period within a specified context in relation to X”*

## *Some identified properties*

*Trust is relativised to some business transaction.*

*Trust is a measurable belief.*

*Trust is directed.*

*Trust exists in time.*

*Trust evolves in time, even within the same service.*

*Trust between collectives does not necessarily distribute to trust between their members.*

*Trust is reflexive, yet trust in oneself is measurable.*

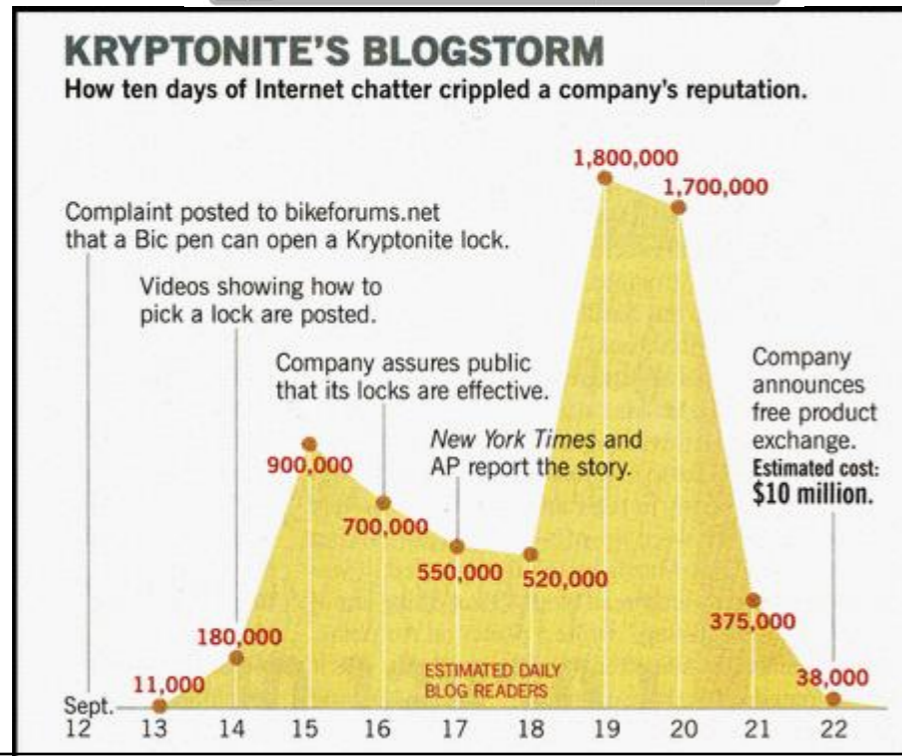


**Economic theory excludes trust – but! economic scientists have set up experimental methods to measure it!**

However, it is difficult as ***Homo*** “**economicus**” does not trust



# Social Reputation - The collective power



The use of technologies like FOAF (Friend Of A Friend) in the field of services will allow SW agents, and humans, to gain information on the reliability and reputation of a service.

It is important to know how Web 2.0 technologies used in e-commerce, e-health and e-governemnet can support trust and reputation within and between computers and humans services.



# **eHealth, eCommerce and eGovernment for Primary Health Care in Romania**



**Augustin Prodan  
Iuliu Hatieganu University**

**Rodica Prodan  
MedFam Group**

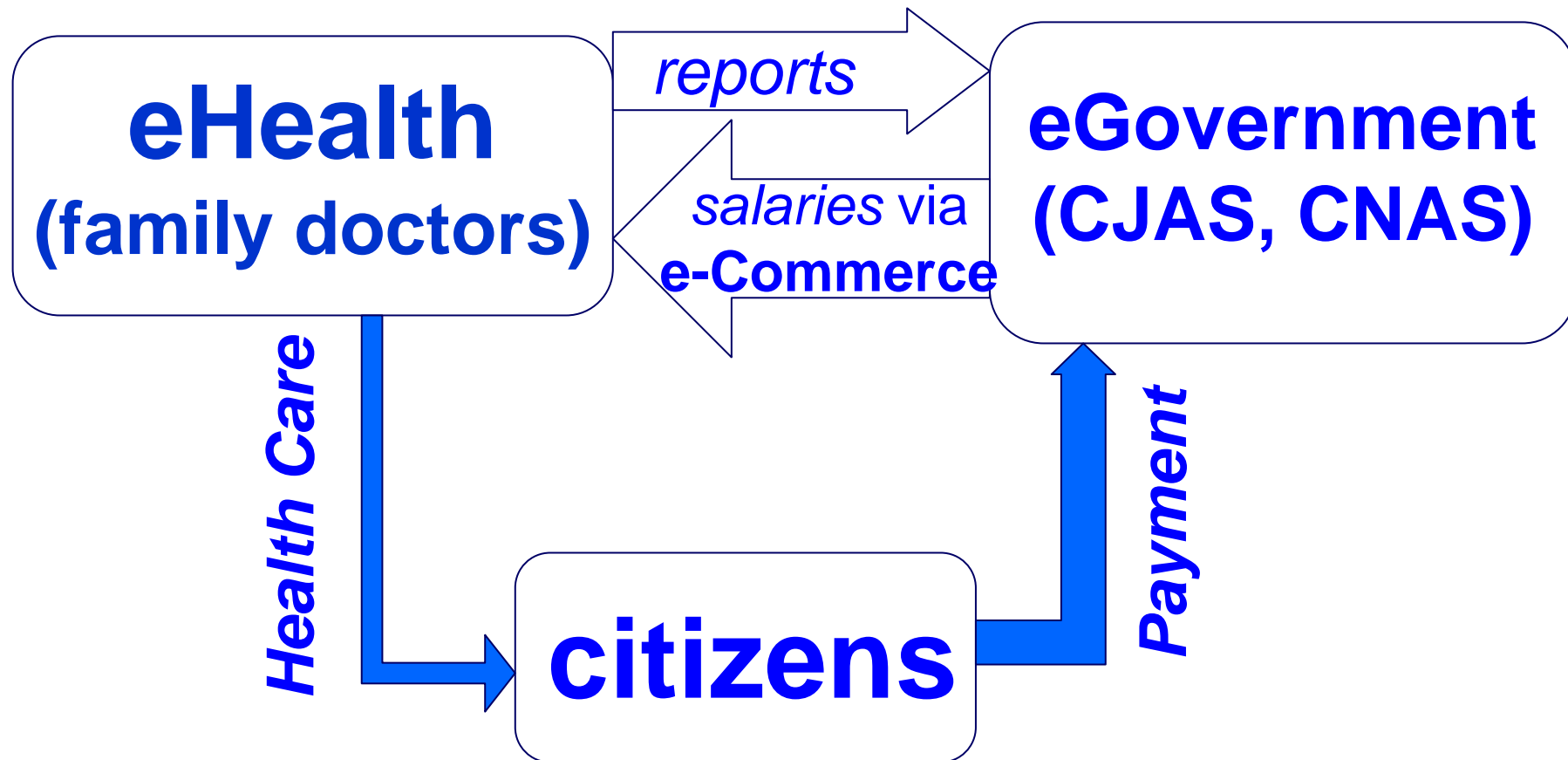
**Cluj-Napoca, Romania**

# **eHealth, eCommerce and eGovernment for Primary Health Care in Romania**



- **eHealth for primary health care**
  - family doctors
  - computers, specialized software and Internet
- **eCommerce**
  - banking cards
  - financial transactions via Internet
- **eGovernment**
  - CNAS (National House for Health Assurance)
  - CJAS (Regional House for Health Assurance)

# eHealth, eCommerce and eGovernment for Primary Health Care in Romania



# **Reports towards CJAS**



- 1. Paper reports (traditional paper forms)**
- 2. MEDFAM software**
  - **electronic reports (disquette/stick)**
  - **Printed reports**
- 3. SIUI software**
  - **electronic reports (disquette/stick)**
  - **Printed reports**

# **Incomes to Medical Unit**



- **Number of patients registered for assurance to medical unit.**
- **Health Care Services**
  - Immunities (vaccines);
  - Control for pregnant and childbed health care;
  - Control for chronic patients (diabetes, heart block, high blood pressure, etc.);
  - Tracking down of tuberculosis.

# Conclusions



- **Too many reports with superfluous information.**
- **Net income should depend on number of consultations/day.**
- **A lot of money are redirected from health care system towards other domains, via government.**
- **eCommerce is very poor.**
- **eGovernment is inadequate.**