

Public Private Partnership in ICT infrastructure: The case study on Telemedicine in Belarus



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Background



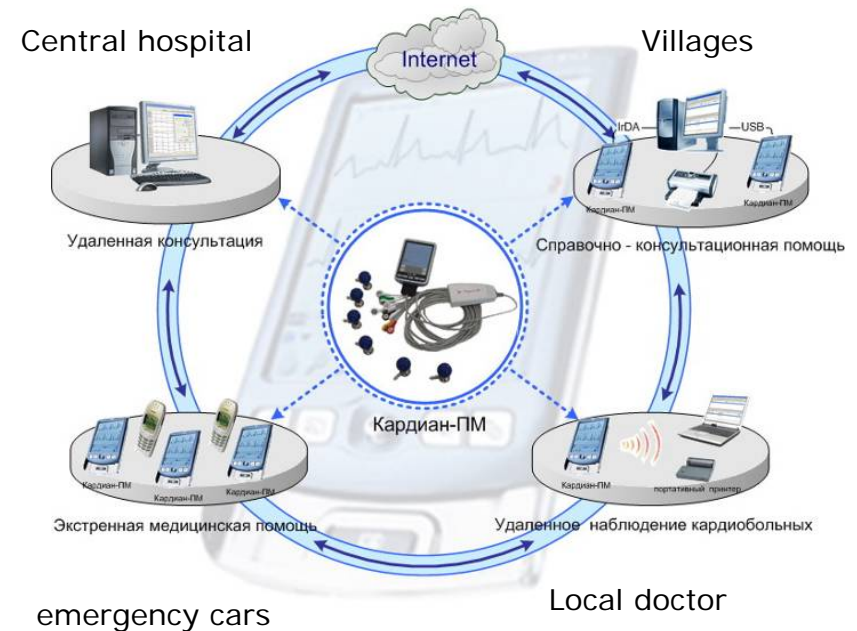
- 27% of the population of Belarus lives in rural areas
- 20% of the rural population lives in poverty
- Cardiovascular diseases are common among the population in Belarus
- Belarus operates a state financed health care system (government makes all purchases)



Market needs: Telemedicine



- There is a need to provide rural population in Belarus with sufficient medical treatment for cardiovascular diseases with services
- Telemedicine (“distance health care”) is a practice of providing medical services where the distance is a critical factor
- Solution is to connect a doctor in a local hospital in the rural area with a cardiac specialist in a central hospital by using information and communication technologies (ICTs)



Telemedicine as a PPP project: Scope



- The aim of the PPP project is to expand access for the population to high-quality medical diagnostics and professional consultations via ICTs
- Type of PPP project is Design-Build-Finance-Operate (DBFO) where the private sector designs, finances, operates the facility during the term of the lease and charges user fees for the lease period
- Actors:
 - The key actors that enabled **mobile operator MTS** to make this business model work are the Belarusian privately owned **company Cardian**, the **Ministry of Health of Belarus**, the **Central Minsk Regional Hospital** in Borovliany, the **local hospital in Ratomka**, **patients and local communities**, and the **UN Initiative Global Compact in Belarus**
 - Other actors include the **Scientific Research Institute of Cardiology**, the **National Academy of Sciences of Belarus** and the **World Health Organization (WHO)**, who participated in the first meeting of the working group and served as the main providers of expertise on applications of telemedicine in Belarus

Telemedicine as a PPP project: Key Actors



Private Sector

- **Mobile TeleSystem (MTS):** cell phone provider in Belarus
- **Cardian:** a company for the mobile diagnostic equipment



Public Sector

- **Ministry of Health of Belarus:** a key partner and a potential key client for MTS
- **Hospitals and Patients:** users of the mobile cardio equipment

International Organisations

- **UN Initiative Global Compact in Belarus/UNDP:** Network promoting Corporate Social Responsibility in Belarus and acts as catalyst and facilitator

Telemedicine as a PPP project: Process



Cardian-PM Mobile ECG Equipment
Installed in Rural Hospitals



MTS purchases Cardian PM
equipment and supplies
internet for local hospitals
to speed adoption

Ministry of Health
purchases Cardian PM
for local hospitals

- organize dialogue between partners
- provide expert support
- provide advocacy and publicity for the project
- facilitate the dissemination of best practices from the project in other parts of the country

ECG recorded with Cardian-PM



Rural hospital without cardiac specialist

ECG data transmitted
to Central Hospital

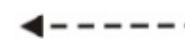
Analysis, diagnosis
& treatment
options sent back
to local hospital



Cardiac specialist reads ECG







Central Hospital for entire region

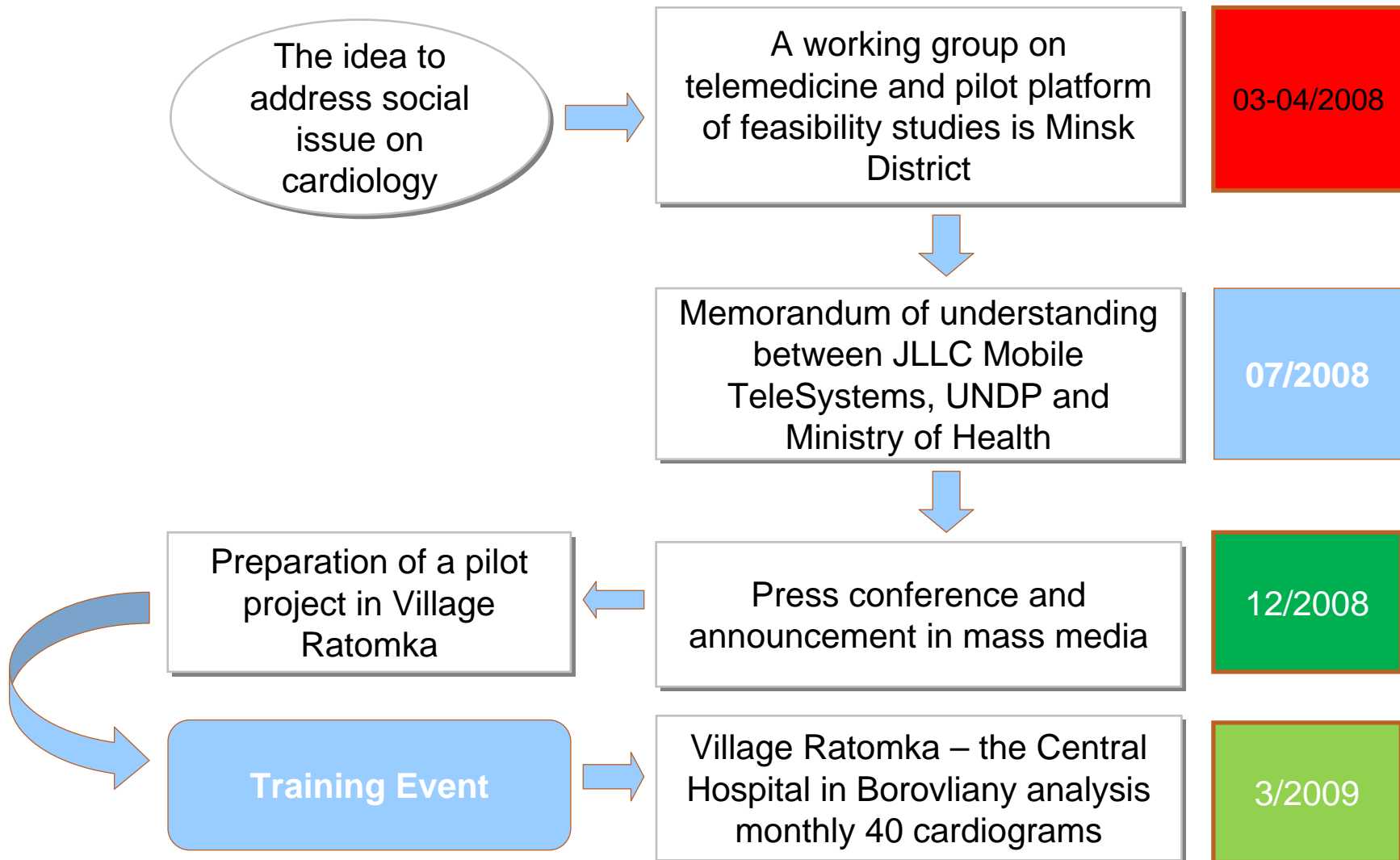


Telemedicine as a PPP project: Financing

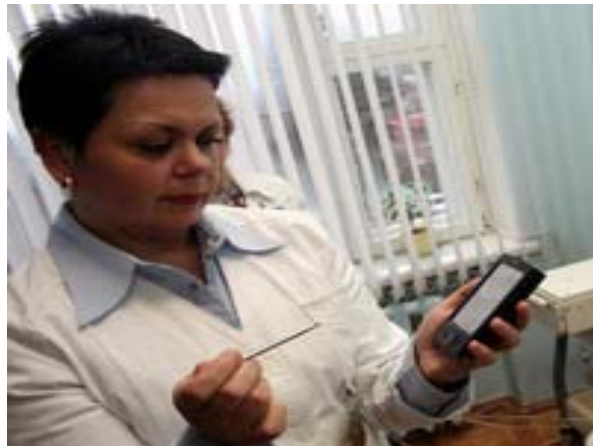


Item	Private Sector	Public Sector	Clarification
Cardian PM soft ware application for the transmission of data via cellular communication channels by a cardiologist at a central medical establishment	\$3,850	-	
The Cardian-PM complexes for the working places of a cardiologist at a central hospitals with computer hardware and software	\$10.000	Number is funded by the Ministry of Health in the framework of state programme	
Mobile broadband Internet for local hospitals by selling them a USB modem that plugs into a computer and connects it to the Internet (called MTS-Connect), or	-	one-time fee of \$55 for "MTS-Connect"	
An Internet enabled specialized mobile phone for local doctors or emergency cars that can connect to the Cardian-PM either through a cable or through a Bluetooth wireless connection for transmitting ECGs	-	\$150 for a specialized mobile phone	
Recurring fees for the service (charged to hospitals not patients)	-	\$10 per month per connection	Electrocardiogram (ECG)

Telemedicine as a PPP project: Implementation



Telemedicine as a PPP project: Implementation



Pilot evaluation and approaching other hospitals by MTS

5/2009

Cardian-PM complexes installed in emergency cars and Central District Hospital in Mozyr and Zhlobin that provide medical care in villages (Chernobyl area)

09/2009

The mobile telemedicine complexes are installed in emergency cars in villages of Vitebsk region

11/2009-
02/2010

Revenue from services & gross profit for products \$18.072 in 2011 and planned expansion to CIS countries (UA and KZ)

2011

Benefits



- **Business Benefits**
 - Introduction of innovative products and approaches
 - Transformation of business models
 - Opening up of new markets and business opportunities
- **Development Benefits**
 - Increased access to high quality and affordable medical services
 - Reduced travel costs for rural population
 - Improved rural health and life quality



Conclusion



- PPP project has at the same time high **social importance** and **commercial success** that allows long-term sustainable development of socially significant partner projects
- The success factor: the **UN Global Compact was involved** in the project and supported actors in idea generation, project planning and facilitation of negotiation process between actors

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