

Różnice w zdrowiu w populacji Polski
29 września – 1 października 2011
Warszawa

Health differences in Polish population
29 September – 1 October 2011
Warsaw, Poland

Computer system and data management

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Data management

- Data abstraction
- Data collection
- Data transmission and storage
- Data coding
- Data processing
- Data security
- Data QA

Data abstraction

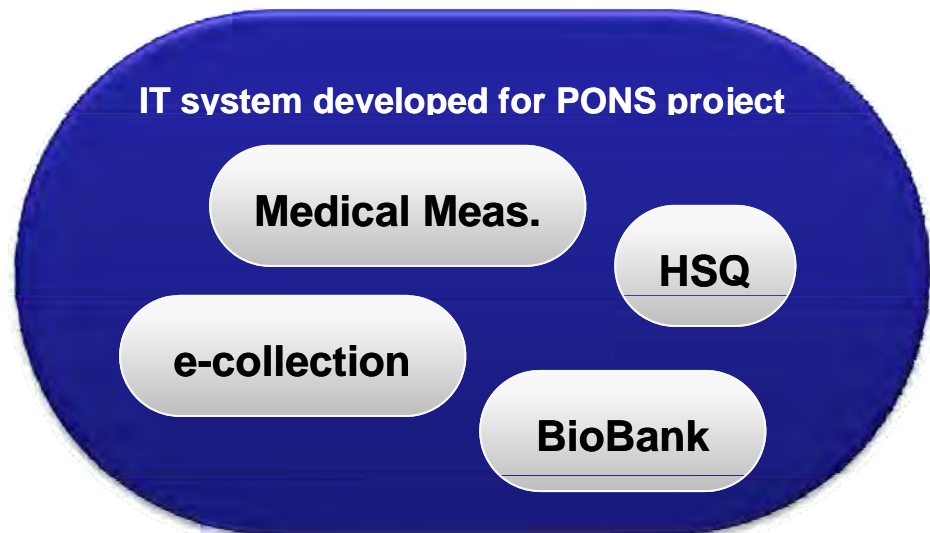
- **Health Status Questionnaire – HSQ**
 - 375 questions, **524 variables**
- **Medical Measurements**
 - e-Form (height, weight, ECG, etc.), **60 variables**
 - ECG Assessment Questionnaire – 23 questions, **52 variables**
- **BioBank**
 - Blood sample localization, **~30 variables**

Electronic Participant Record:

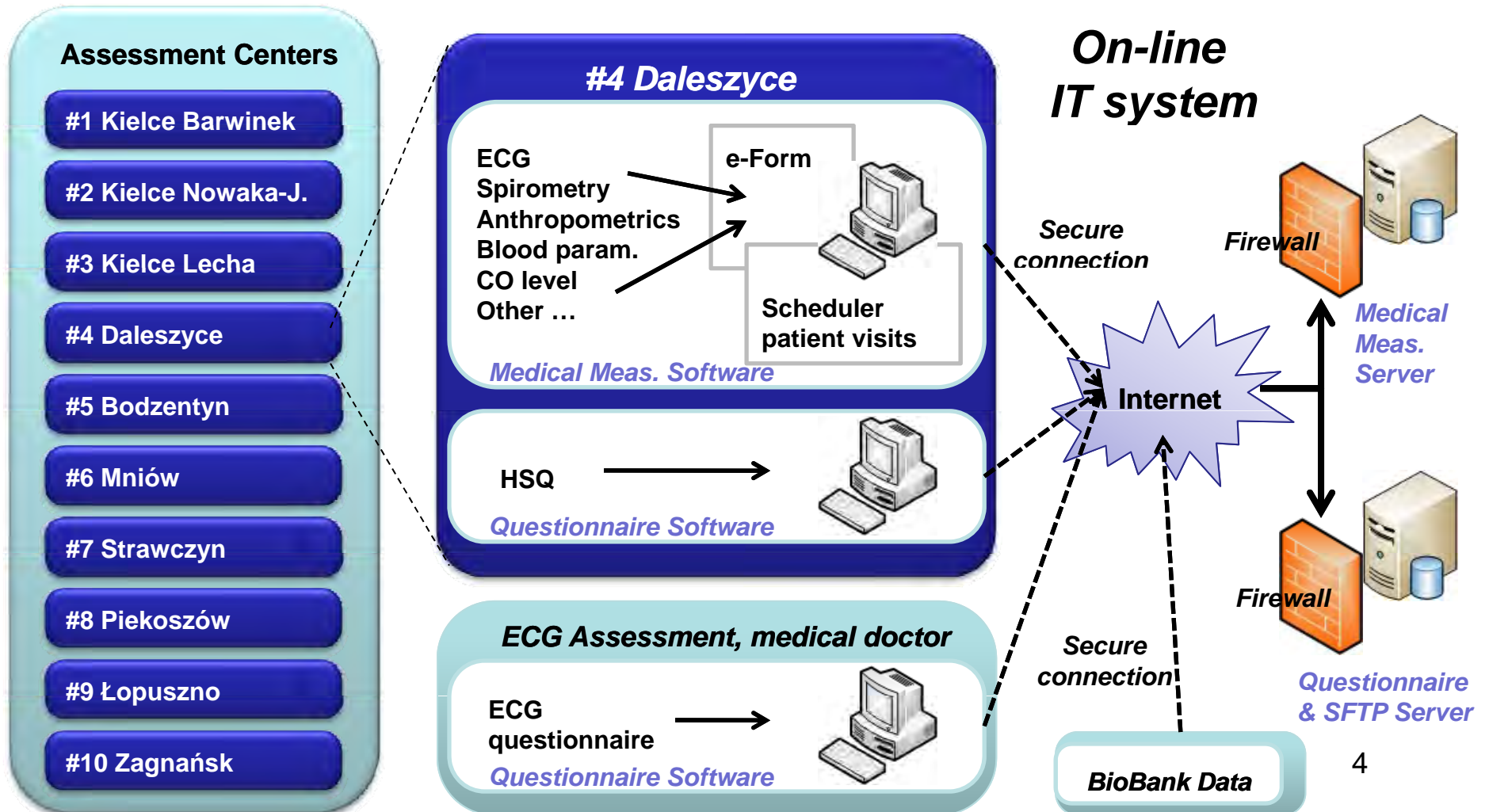
HSQ + Medical Meas. + Biobank **~660 variables**

Data abstraction

- **Other electronic collection (e-collection):**
 - Computer scan of written consent
 - Source database of medical measurements:
 - ECG
 - Spirometer results
 - Checklist for data consistency



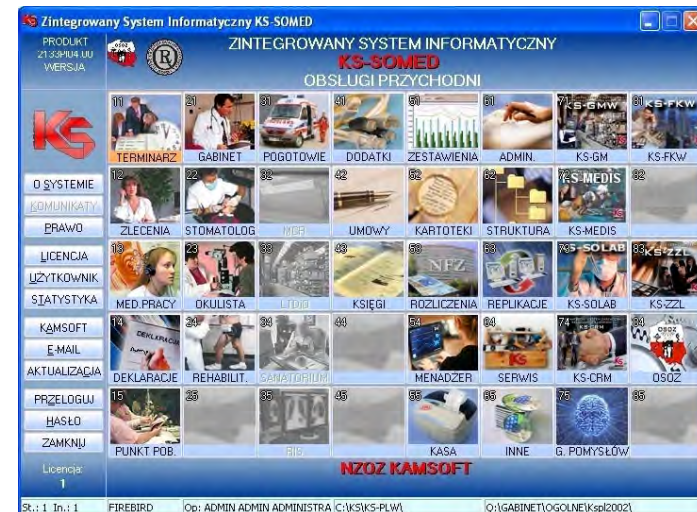
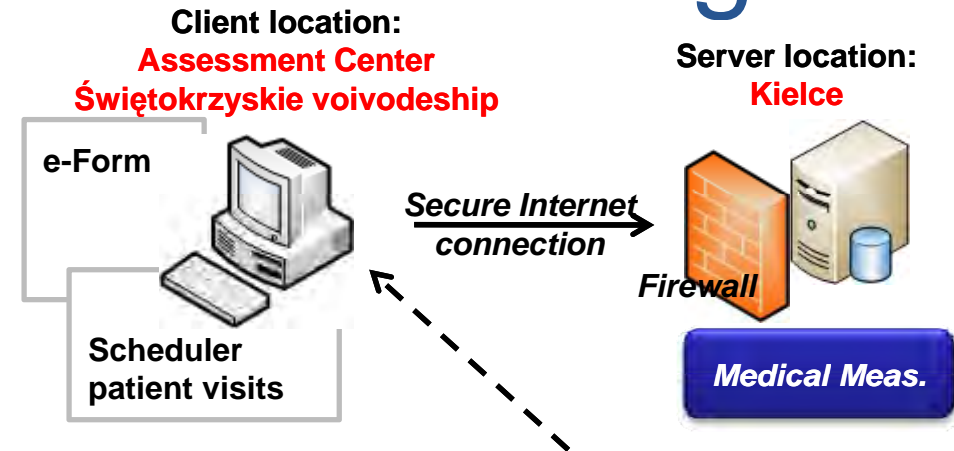
Data collection



Data transmission and storage

■ Software for *Medical Measurements storage*:

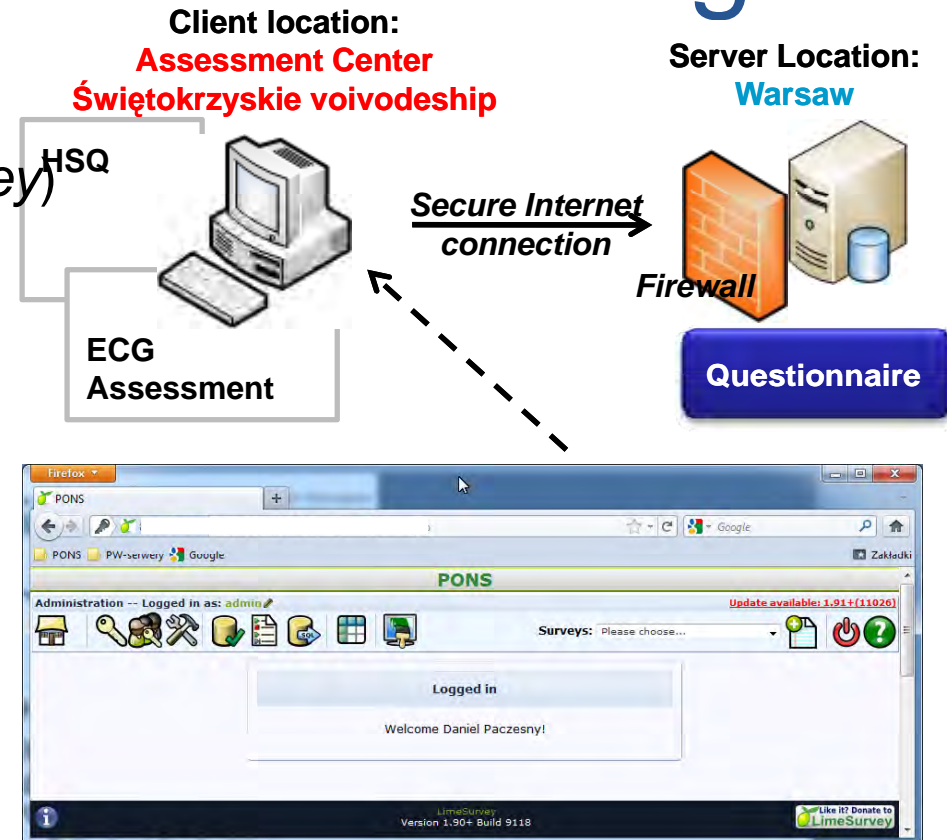
- Commercial product (KS-SOMED, KAMSOFT S.A.)
- About 40 different modules, PONS project use mainly:
 - Patients visit scheduler
 - **e-Form for medical measurements collection**
 - Monitoring and reporting
- On-line access
- Oracle™ database



Data transmission and storage

■ **Questionnaire management:**

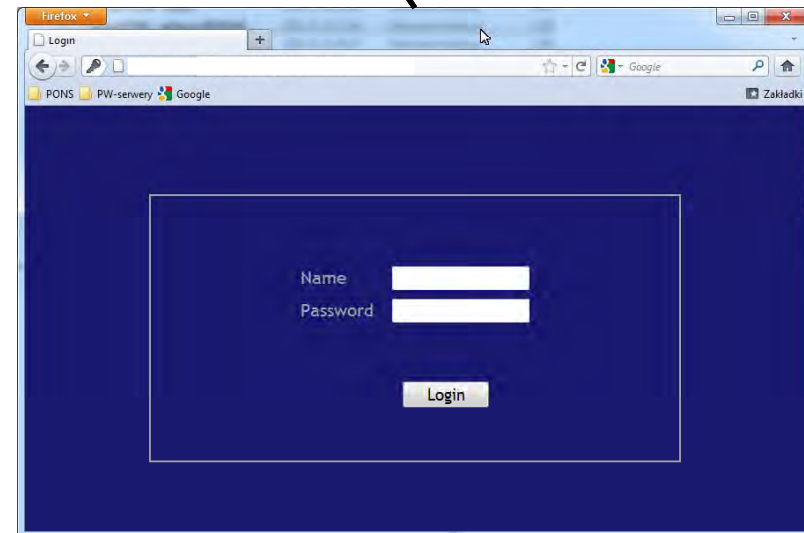
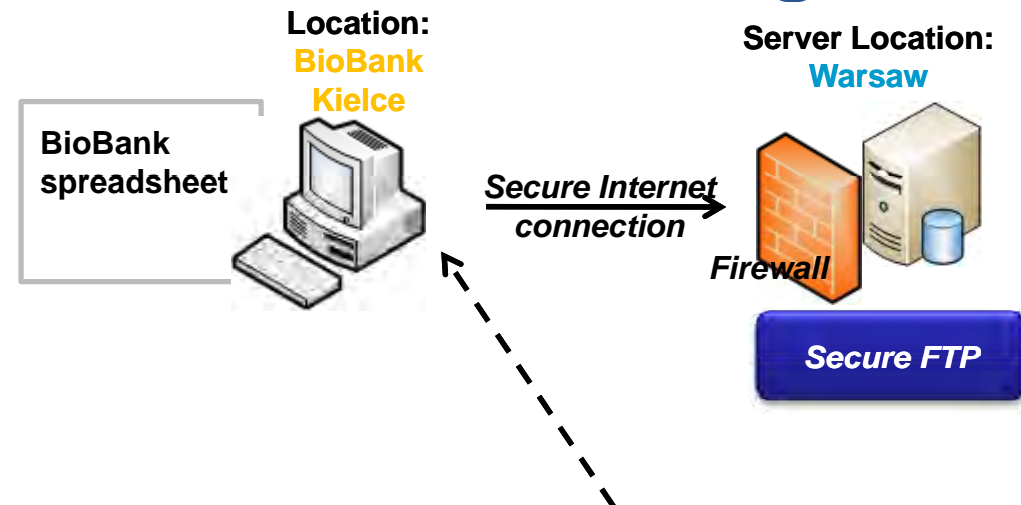
- Open source product (*Limesurvey*)
- Used for **HSQ** and **ECG Assessment** in PONS project
- Main Features:
 - Unlimited number of surveys, questions, participants
 - User-management
 - Web-based application
 - Complex skip patterns
 - Data validation
 - On-line monitoring and reporting
 - File format export: text, csv, SPSS
- *MySQL* database



Data transmission and storage

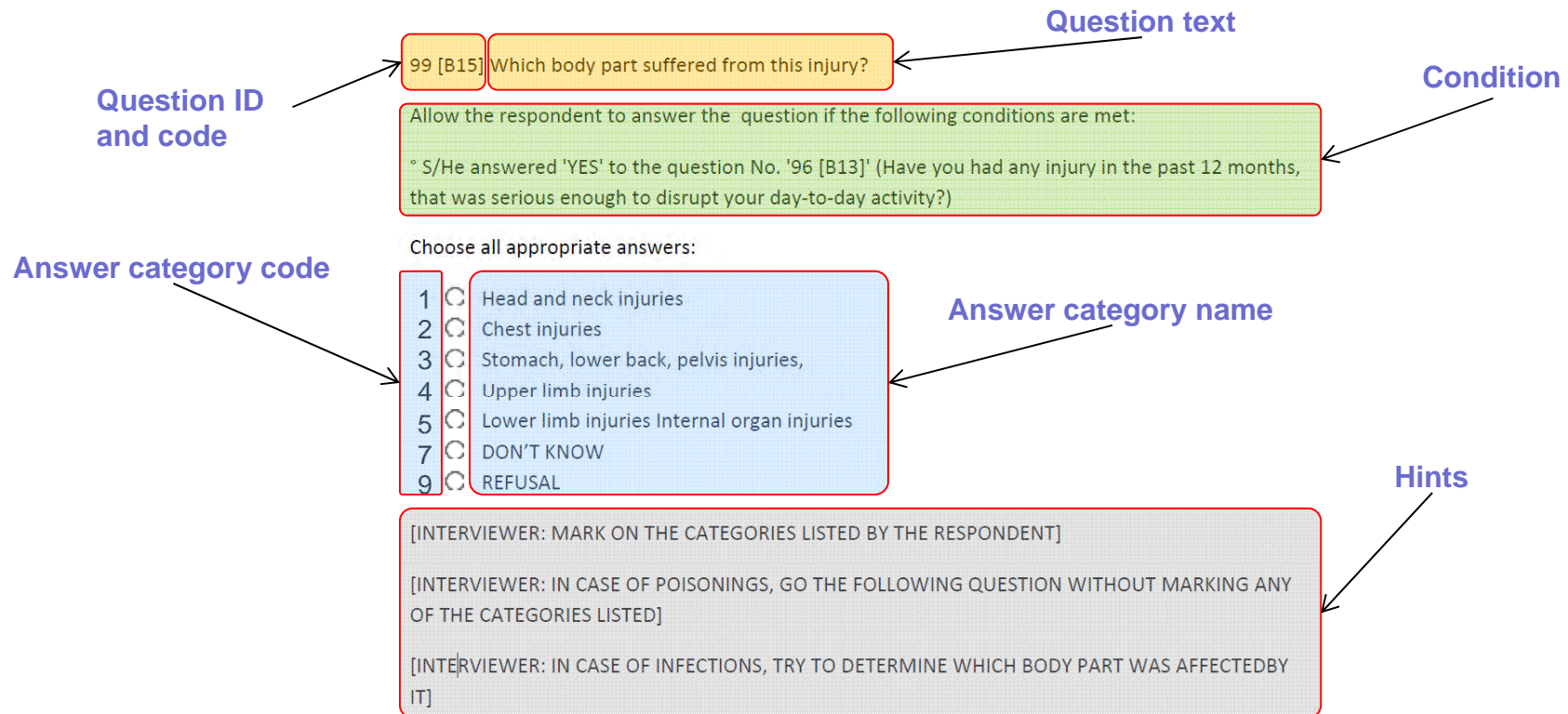
■ *BioBank data secure upload software:*

- Self-developed product for PONS project
- Main Features:
 - Double login required
 - User name and password protection
 - Secure connection – https
 - Uploading history – log file
- BioBank spreadsheets stored in secure ftp server area



Data coding

- **HSQ and ECG Assessment (Sample question):**



Record ID - Personal identity number – PESEL, unique value

Code: „7”, „77” or „777” for „Don't know” category

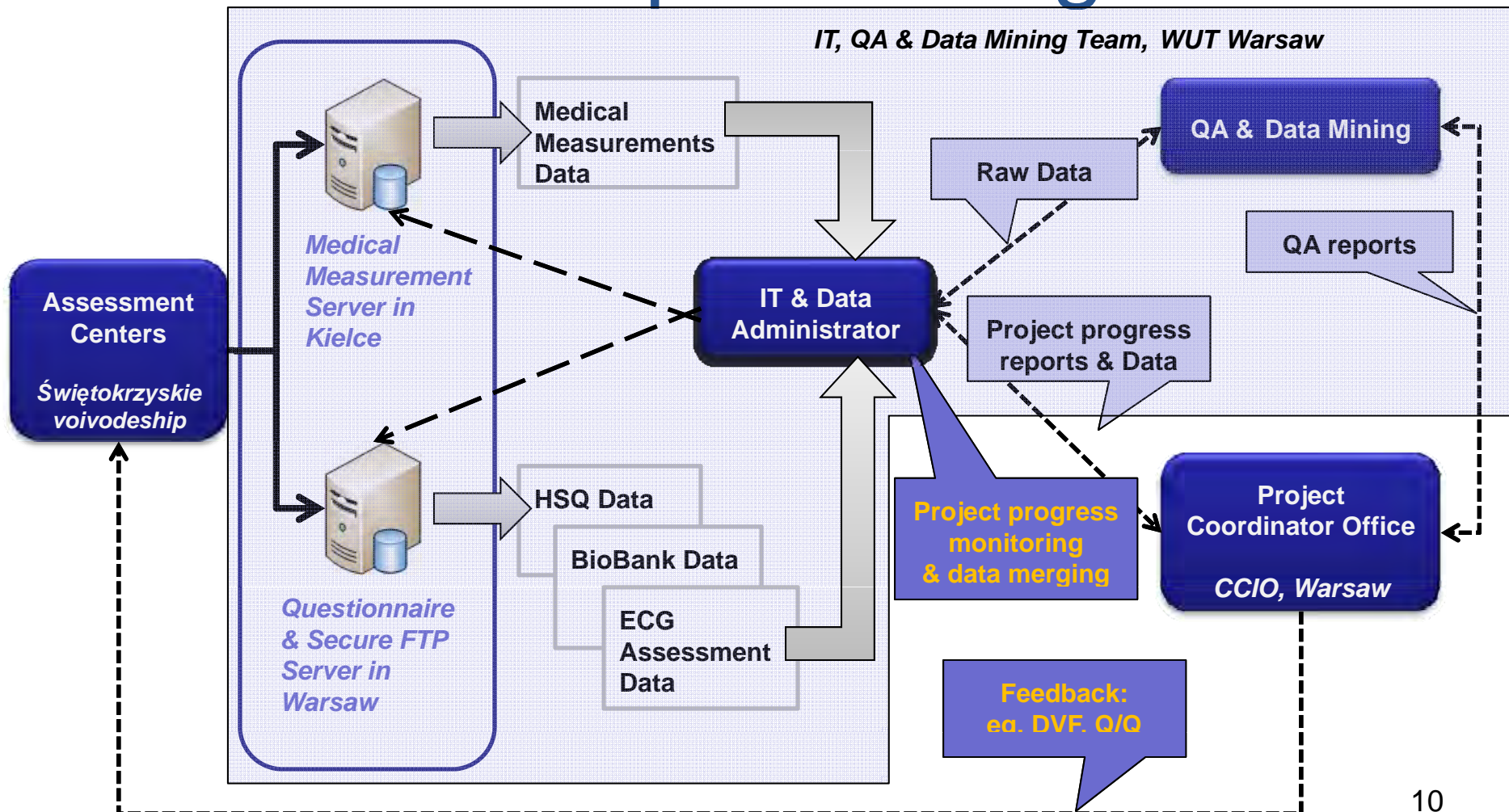
Code: „9”, „99” or „999” for „Refusal” category

Data coding

- **Medical Measurements – e-Form:**
 - Mostly numbers, only few string variables, i.e. Name, Address
 - Record ID - Personal identity number – PESEL, unique value
 - Code = „999” or „9999” if variable is not available

X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH
159	79	62	159	78	58	94	190	72,87	103	72
145	90	100	140	85	97	90	238	65,24	154	93
146	98	74	149	91	71	73	224	30,42	131	314
121	66	78	130	68	82	114,36	190,42	32,28	125,08	165,3
142	77	69	125	78	65	105	240	69,76	148	109
140	94	81	135	65	79	82,93	251,09	71,62	162,1	86,84
123	77	84	116	77	85	80	245	66,84	149	146
181	95	86	172	96	89	135	197	43,32	115	193
179	98	95	165	98	87	94,12	325,4	36	255,76	168,21
138	75	64	124	76	63	91	245	58	164	114
129	77	76	133	81	73	106	183	53,9	114,9	71
135	71	70	129	75	65	121	228	67,91	135,89	121
146	95	61	144	88	61	93	247	62,38	167	88
142	81	70	127	81	69	92,13	226,16	49,79	158,27	90,5
148	82	66	134	84	64	102,22	209,3	56,52	132,55	101,19
115	74	83	142	76	75	96,24	182,71	53,86	113,14	78,5
134	73	68	132	75	65	97,37	192,83	39,14	130,93	113,77
123	70	87	110	70	86	90,33	171,55	63,22	93,88	72,22
121	82	80	121	83	76	79,34	228,22	53,34	151,47	117,06
132	82	76	140	80	80	85,48	201,2	40,01	142,59	93,07
151	96	80	138	97	80	79,81	187,53	38,07	126,2	116,28
160	89	72	153	90	69	104,58	281,86	53,21	196,97	158,41
126	74	69	110	73	66	76,54	246,79	72,61	160,59	67,93
164	60	65	163	65	64	97,01	182,11	51,62	99,95	152,72
148	87	86	150	87	80	89,73	256,53	37,43	194,16	124,71

Data processing



Data security


- Developed secure policy procedures and implemented solutions in PONS project:
 - Access to IT infrastructure: username & password, PIN, IP filtration
 - Secure connection (encrypted) between clients and servers: *https, SSL, VPN*
 - Server firewall (in questionnaire server – 3 stages of firewall) and antivirus software on client computers
 - Secure FTP server for exchange and files storage
 - Secure Data USB drive – 256 bits hardware encryption for files and data exchange
 - Everyday databases automatic backup

Conclusion

- Number of created user accounts: **~40**
- Project progress (25.09.2011): **8650 patients** examined
- **380 days** of continuous and stable computer systems running (without 1 day)

Thank you for attention!

Current date: 28-09-2011 Add to favourites Set as home page 



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20-09-2011
Differences in health in Polish population



The Maria Skłodowska-Curie Cancer Center and Institute of Oncology in Warsaw and Institute of Rural Health in Lublin are organizing scientific conference on health differences in Polish population and primary prevention on 29 and 30 September, and 1 October 20011. The aim of the conference is to present the diagnosis of Polish population's health. The data used for the diagnosis come from Polish prospective cohort studies and some primary prevention activities (e.g. 200 years of vaccinations). Differences in health will be discussed broadly, especially men/women differences, rural/urban differences, education and socioeconomic differences. There is expected participation of some outstanding scientist, among others prof. Salim Yusuf - Executive Director, Population Health Research Institute, McMaster University in Hamilton, Canada.

Supported by a grant from Norway through the Norwegian Financial Mechanism



norway grants Polish-Norwegian Research Fund

09-05-2011
Distinguished lecture of prof. Zatoński in DKFZ in Heidelberg!



06-05-2011
Progress of participants' recruitment

On the main project page there were set progress bars

Projekt PONS na Facebooku
Lubię to! 37

Project progress

58%
8400 patients already examined

Last updated: 25.09.2011

Od informacji do innowacji.
OPI

MINISTERSTWO NAUKI I SZKOLNICTWA WYSZSZEGO

EW-Closing the Gap
Reducing Premature Mortality, Extending Life Expectancy, Slowing Disease Evolution Following Emigration

Please visit the PONS Project home page: www.projectpons.pl