SURVEILLANCE AND CONTROL OF HEALTHCARE PROVIDERS IN LITHUANIA

NATIONAL HEALTH INSURANCE FUND UNDER THE MINISTRY OF HEALTH

VILNIUS

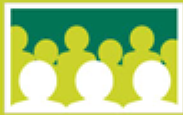
2022-09-07

Presentation plan

1. LEGAL REGULATION

2. MONITORING OF CLINICAL CODING

3. CONTROL PROCEDURES



Legal Basis for Surveillance Provided by NHIF and THIF (art. 30, 31 and 33 of the Law on Health Insurance)

National Health Insurance Fund (NHIF) has:

- the right to perform control measures
- the function to supervise Territorial Health Insurance Funds

Territorial Health Insurance Funds (THIFs) have:

- the function of control

The main purposes of surveillance -

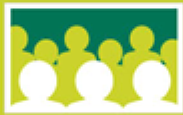
1) provision of accessible, safe and appropriate health care for insured,

2) ensuring the legal, transparent and rational use of the finances of the NHIF

Legal regulation

We have the legal acts which regulate supervision of health care institutions activities and health care services surveillance, monitoring, control procedures and clinical coding quality surveillance procedures. Legal acts define:

- Duties and responsibilities of healthcare providers, THIFs and NHIF;
- Data quality assessment procedure by verifying of their compliance with:
  - Diseases and Related Health Problems (ICD-10-AM) classification
  - Health Interventions (ACHI) classification
  - Australian and Lithuanian Coding Standards
  - Requirements of other legal acts (e. g. regulation on day surgery)



Who are responsible for data quality in Lithuania?

1. HEALTHCARE PROVIDERS

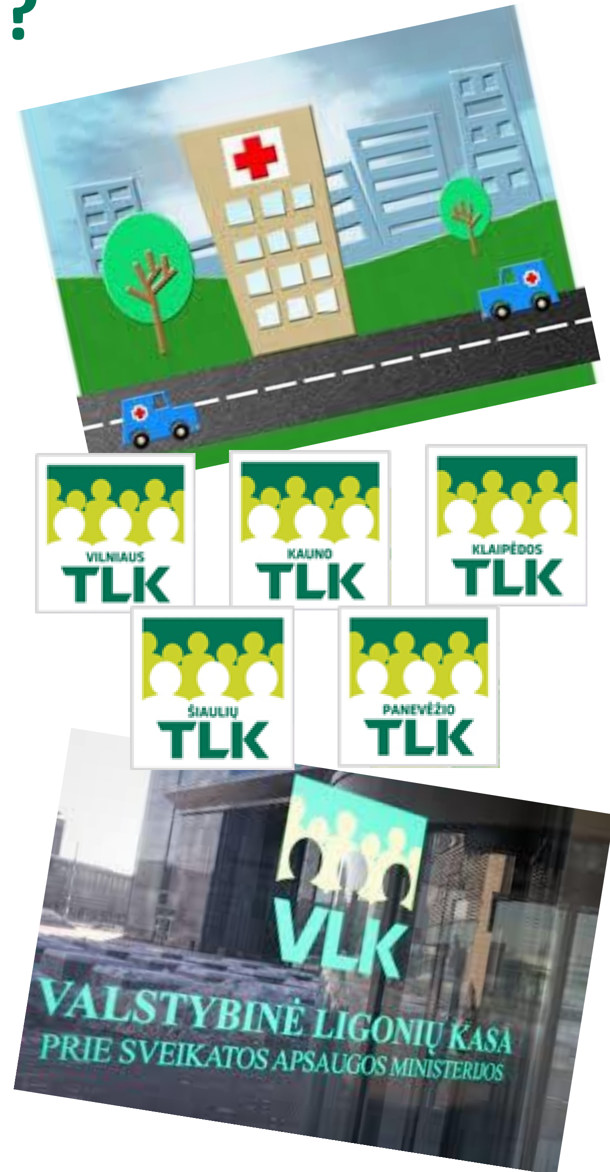
In Lithuania clinical coding is mostly performed by doctors. Majority of hospitals have appointed the clinical coders.

2. TERRITORIAL HEALTH INSURANCE FUNDS (5)

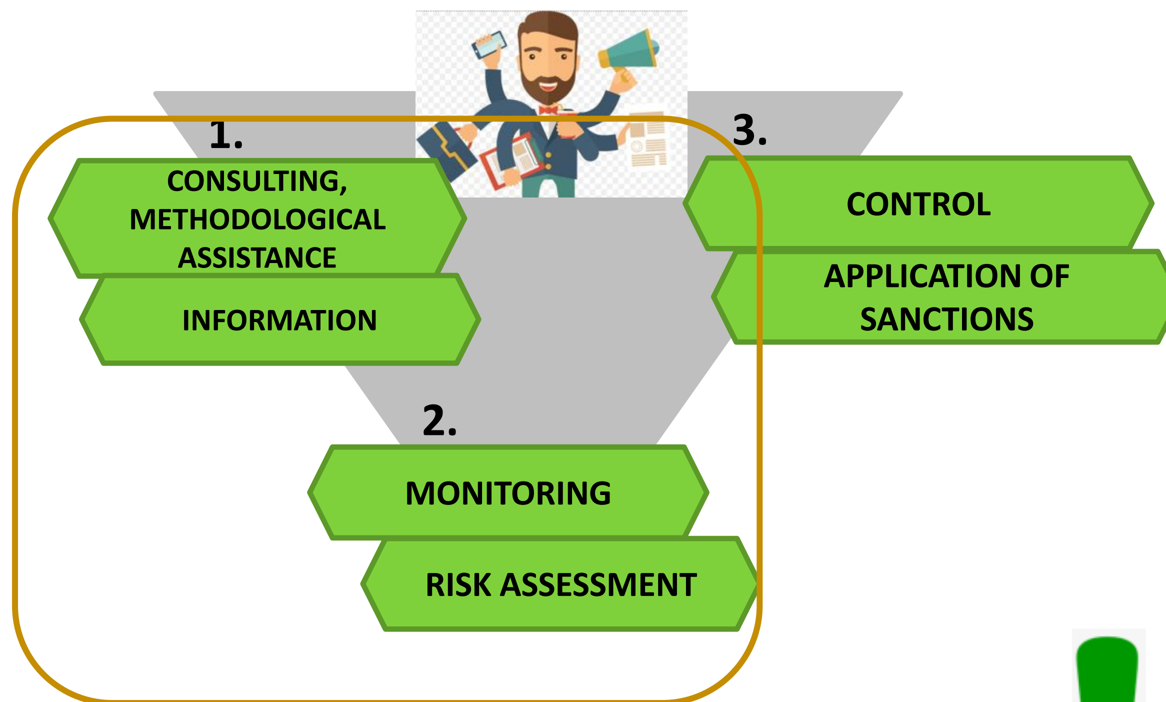
Means to control data quality: surveillance and control of healthcare providers, harm recovery and penalties.

3. NATIONAL HEALTH INSURANCE FUND UNDER THE MINISTRY OF HEALTH

(supervise all data quality assurance process; data surveillance according unified rules)



Components of Surveillance



FUNDAMENTAL PRINCIPLE OF SUPERVISION – PREVENTION RATHER THAN PUNISHMENT

Why is Coding Quality Important?

- Good documentation supports better care for patient
  - Ensuring access to necessary records for future cases
  - The records are accurate, complete and understandable
- Quality clinical documentation also ensures the information reliable for many other purposes
  - Research
  - Planning
  - Performance improvement
- Quality documentation quantifies hospital activity
  - Activity based funding is focusing attention on the reliability and validity of coded health data

Steps to Data Quality

- Education and training:
  - Courses
  - Materials (methodological guidelines, newsletters and other recommendations)
  - Direct communication with coders
- Regular checks of IT System data;
- Verification of all data related to a specific case (documentations, IS, E-health)

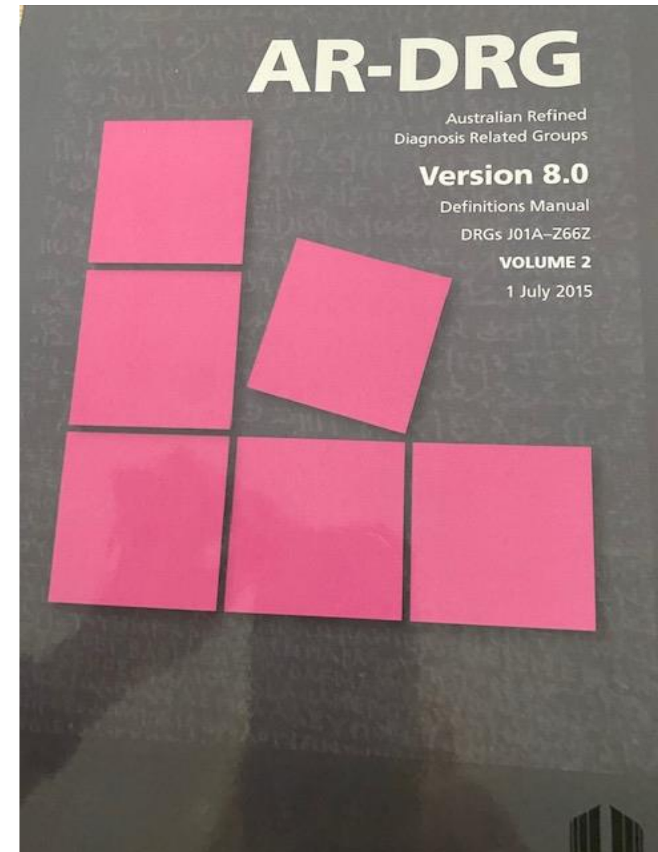
DRG in Lithuania (for in-patient care)

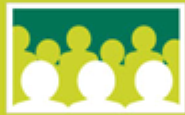
In Lithuania the Case mix grouping for acute care episodes was started in 2012. We started with Australian Refined Diagnosis Related Groups (AR-DRG) version 6.0 released in 2008.

The main components of AR-DRG are:

1. Australian coding Classifications → diseases and interventions coding (primary classifications):
   - Diseases and Related Health Problems (ICD-10-AM)
   - Health Interventions (ACHI)
   - Australian Coding Standards
2. DRGs Classification → grouping of episodes (secondary classification)

Now we use AR-DRG 8.0 version (2015 year)





Evolution of clinical coding monitoring

2012

- we started noticing possibly incorrectly coded episodes in our IT system:
  - Conflicting with medical logic, coding standards, classifications (disease, interventions)
  - Opposing legislation

2013

- incorrect episodes were identified by NHIF specialists who manually checked the data from statistical forms. Possibly incorrectly coded episodes were reported to the THIFs and healthcare providers for additional recheck.

2015

- we started to create automated filters which help us identify possibly incorrectly coded episodes by some patterns

2017

- we have upgraded IT system to better support monitoring and control of the coding process. Now we have special user interfaces to review, mark and comment episodes directly in the IT system, and users of THIFs and healthcare providers can instantly see our remarks.

2020

- we have upgraded IT system and started to use automatic clinical coding indicators on real time data (at the end of in-patient care episode) - this prevents to enter incorrect data to IT system

Prevention of clinical coding mistakes

- We started providing trainings to prevent the most common clinical coding mistakes and to improve coding quality;
- We prepared methodological materials about the issues of clinical coding;
- We manage Diseases and Related Health Problems (ICD-10-AM), Health Interventions (ACHI) classifications and Coding Standards (AU & LT);
- We consult healthcare providers on clinical coding issues by phone and email (kodavimas@vlk.lt);
- We prepare and publish clinical coding quality reports, training materials, newsletters and etc. on our website.

Methods of surveillance

1. Manual checking

2. Automated filters (clinical coding indicators)

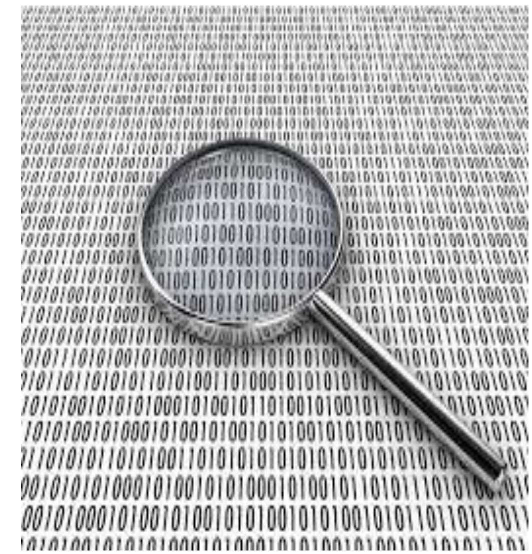
Clinical data compliance to:

- Coding standards;
- Disease and intervention classifications;
- Other legal requirements.

- At the end of each episode
- After closure of financial period

Entries which are most important to check in episode

- **Diagnoses (principal & additional) (ICD-10-AM)**
- **Health Interventions (ACHI)**
- Sex, age, admission weight (for new-borns and babies)
- Reason for discharge, length of stay
- **DRG**
- Other entries for national requirement



Monitoring Indicators

We monitor general and specific inpatient acute care clinical coding indicators annually. We currently have a total number of 509 indicators:

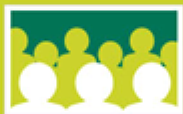
- **506 SPECIFIC INDICATORS**
- **3 GENERAL INDICATORS**

Specific Indicator degree

Indicators are divided into two levels:

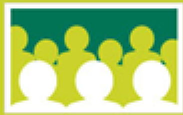
Fatal Indicator – - any record identified by this indicator is false (504 indicators)

Warning Indicator – records identified by a warning indicator indicate that individual codes or combinations of codes or other data elements may be incorrect (2 indicators)



Specific indicators groups (automatic checking)

Group code	Indicator group name	Number of indic.
1	Certain infectious and parasitic diseases	4
2	Neoplasms	13
3	Diseases of the blood system	7
4	Endocrine system	30
5	Mental and behavioural disorders	11
6	Nervous system	10
7	Diseases of the eye	1
8	Diseases of the ear and mastoid process	11
9	Circulatory system	40
10	Respiratory system	17
11	Digestive system	53
12	Skin and subcutaneous tissue	29
13	Musculoskeletal system and connective tissue	24
14	Genitourinary system	20
15	Obstetrics and gynecology	59
18	Symptoms	4
16	Neonatology	8
19	Injury, poisoning and certain other consequences of external causes	108
21	External causes of morbidity and mortality	8
22	Other	28
25	Transplantation	21
	Total	**506**

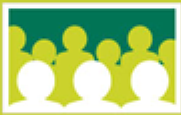


www.ligoniukasa.lrv.lt → Gydymo įstaigoms ir partneriams →

Klinikinis kodavimas → Klinikinio kodavimo kokybės stebėsenos taisyklės

Automatinis įrašymas — 0701 Rodikliai - Excel

KKT Klinikinio kodavimo taisyklės numeris	Tema	Pavadinimas	Taisyklės nr.	Taisyklės tipas	Taisyklės aprašymas	Kodavimo standartas (-ai)
09-001	Kraujotakos sistema	Hipertenzinė širdies liga, kai yra širdies nepakankamumas	43	Kritinis	Toliau išvardyti kodai negali būti nurodyti vienoje kortelėje: I11.0 *Hipertenzinė širdies liga su širdies nepakankamumu (staziniu),* I13.0 *Hipertenzinė širdies ir inkstų liga su širdies nepakankamumu (staziniu) ir 1–4 stadijos lėtine inkstų liga,* I13.2 *Hipertenzinė širdies ir inkstų liga su širdies*	0925
09-002	Kraujotakos sistema	Širdies nepakankamumas	44	Kritinis	Kodas I50 *Širdies nepakankamumas* ir kodas I11.9 *Hipertenzinė širdies liga be širdies nepakankamumo (stazinio)* arba kodas I13.1 *Hipertenzinė širdies ir inkstų liga su 5 stadijos inkstų nepakankamumu,* arba kodas I13.9 *Hipertenzinė širdies ir inkstų liga, nepatikslinta* negali būti	0925, 0920
09-003	Kraujotakos sistema	Širdies stimuliatorius arba defibriliatorius	78	Kritinis	Jei atliekamas širdies stimuliatoriaus ar defibriliatoriaus implantavimas, keitimas, taisymas, žymimas intervencijos kodu 38353-00 [650] *Širdies stimuliatoriaus generatoriaus implantavimas,* kodu 38353-01 [655] *Širdies stimuliatoriaus generatoriaus keitimas,* kodu 90203-05 [655] *Širdies stimuliatoriaus generatoriaus taisymas,* kodu 38393-00 [653] *Širdies defibriliatoriaus generatoriaus implantavimas,* kodu 38393-01 [656] *Širdies defibriliatoriaus generatoriaus keitimas*	0936
09-004	Kraujotakos sistema	Plaučių edema	85	Kritinis	Jei dėl širdies nepakankamumo (I50 *Širdies nepakankamumas,* I11.0 *Hipertenzinė širdies liga su širdies nepakankamumu (staziniu),* I13.0 *Hipertenzinė širdies ir inkstų liga su širdies nepakankamumu (staziniu) ir 1–4 stadijos lėtine inkstų liga)* pasireiškia plaučių edema, kodo J81	0920, nuoroda po kodu
09-005	Kraujotakos sistema	Arterinė hipertenzija	108	Kritinis	Koduojant hipertenzinę ligą, kortelėje reikia nurodyti tik vieną iš hipertenzinės ligos kodų: I10 *Pirminė (esencialinė) hipertenzija* arba I11 *Hipertenzinė širdies liga,* arba I12 *Hipertenzinė inkstų liga,* arba I13 *Hipertenzinė širdies ir inkstų liga,* arba I15 *Antrinė hipertenzija*.	0925
09-006	Kraujotakos sistema	Širdies sustojimas	143	Kritinis	Diagnozės kodas I46.0 *Širdies sustojimas, kai gaivinimas sėkmingas* turi būti nurodomas tik tuo atveju, jei buvo taikytas gaivinimas (kodas 92052-00 [1890] *Kardiopulmoninis gaivinimas,* kodas 92053-00 [1890] *Išorinis širdies masažas per krūtinės ląstą,* kodas 13400-00 [1890] *Kardioversija).*	Nuoroda po kodu

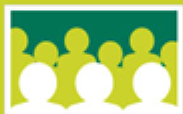


Some examples of specific Indicators

No	Indicator Degree	Indicator description
1	Fatal	Malignant neoplasms, started or presumed to be primary without malignant (primary site) morphology
2	Fatal	Code *Hypertensive kidney disease with kidney failure* with code *Chronic kidney disease, stage 1-4*
3	Fatal	*Sequelae of cerebrovascular disease* as a principal diagnose
4	Fatal	Missing code *Outcome of delivery*
5	Warning	Acute appendicitis without appendectomy
6	Fatal	Administration of blood or blood product code assigned more than once
7	Fatal	Secondary neoplasm site code without primary site code
8	Fatal	Type 1 or 2 diabetes code with impaired glucose regulation code or another form of diabetes code

General Indicators

No	Indicator	Description
1	Case Mix Index	An average of Acute care Case Mix Index for Hospital or nationally
2	A standardized proportion of the most complex treatment cases	Standardized share of in-patient DRG cases with the last character of the code "A" compared to the total number of in-patient cases
3	Rate of episodes with Operating room procedures unrelated to principal diagnosis	Frequency of surgical procedures unrelated to the main (principal) diagnosis



In-patient acute care data monitoring results in 2021

Total **518,832** acute care (in-patient) cases

Automatic checking at the end of episode

In 3,5 % cases incorrect data were found

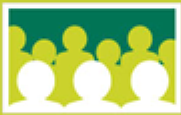
Prevention of incorrect data submitting to the IT system

Manual checking

376,862 (72.6%)

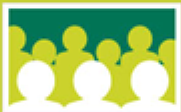
cases were selected according risk assessment

In 3,3 % cases incorrect data were found (about 17 000)



Cases with incorrect data ratio compared to all cases of in-patients acute care by year

Year	Cases with incorrect data, %
2017	6,7%
2018	5,1%
2019	3,5%
2020	3,2%
2021	3,3%

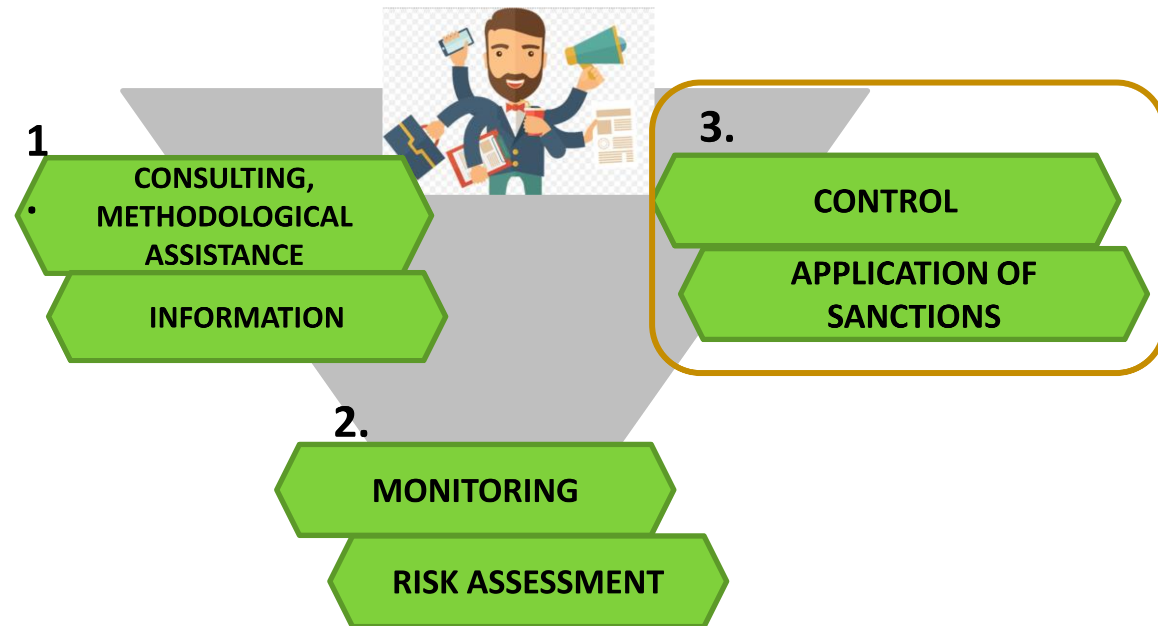


Coding Quality Ratio for Hospitals in 2021

Country average 3,3 %

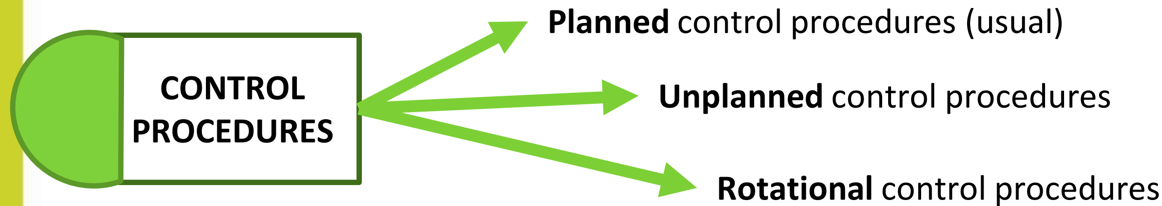
Hospital clinical coding quality reports are published on our website annually from 2015

Components of Surveillance



FUNDAMENTAL PRINCIPLE OF SUPERVISION – PREVENTION RATHER THAN PUNISHMENT

IMPLEMENTATION OF CONTROL PROCEDURES



IMPLEMENTATION STAGES OF CONTROL PROCEDURES

2 separated control stages are performed by different employees

1 stage INSPECTION

- *data collection;*
- *assessment of non-conformities;*
- *report submitted to the health care service provider;*
- *institutions provide explanations*

2 stage EXPERTISE

- *performed by specialists who did not participate in the inspection;*
- *independent evaluation of inspection data and explanation of health care provider;*
- *conclusions and decisions regarding recovery, sanctions, preventive recommendations*

Control procedure approved by Independent Anti-corruption agency in order to ensure transparency of the process

More about control procedures:

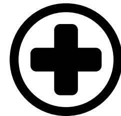
- THIF or NHIF employees and other institutions can be appointed to perform control, according to the need
- Revision of legal acts on:
  - risk assessment of healthcare facilities, contracted with NHIF and THIFs;
  - the principles for determining fraud (losses) to CHIF;
  - organization of control procedures according to the recommendation of Anticorruption Commission of MoH
- Automated control functions were introduced into IT system „Sveidra“ to prevent possible fraud (losses) for:
  - preventive programmes;
  - incentive services of primary health care;
  - expensive investigations and procedures;
  - automatic indicators for clinical coding (DRG)

- *Main benefits:*
  - *ensure collection of correct data about provided health care services;*
  - *prevent possible fraud (losses) as detected discrepancies are treated as „avoided losses“. After correcting data in the IT system necessary correction are performed in the economical report as well;*
  - *increased trust between health care providers and the NHIF/THIF;*
  - *decreased number of misunderstandings;*
  - *the time of control procedures is shortened.*
- Rotating control procedures – provided by specialists from one THIF in the zone of another THIF
- Commissions of joint expertise – NHIF and 5 THIFs specialists present summarized discussion and conclusions on provided control procedure

  Advantages:
  - *Prevention of corruption, transparency assurance*
  - *Unified practice*
  - *Deal with limited human resources*

Control Fields include:

- Healthcare services (primary out-patient care, nursing, ambulance, specialised out-patient, day surgery, day care, observation, emergency care, in-patient care, dental prosthetics, medical rehabilitation)
- Expensive medical tests and procedures
- Preventive programmes
- The prescription and dispense of pharmaceuticals and medical aids
- The production, prescription and handout of orthopaedic devices



Risk assessment of healthcare providers (1)

- Risk assessment of health care institutions that have signed contracts with NHIF and THIFs is carried out annually until 15th March
- On quarterly basis at least 4 institutions assigned to a high-level risk group are included into the list of institutions and companies to be inspected

Risk assessment of healthcare providers (2)

- Risk assessment is carried out of institution activities related to:
  - prescribing of subsidized pharmaceuticals and medical aids
  - provision of reimbursable healthcare services
  - provision of orthopedic equipment

- Healthcare institutions are evaluated according to established indicators. Indicators are evaluated in points. Institutions are ranked according to their riskiness, depending on how many points they collect

Risk assessment indicators related to the prescription of reimbursable pharmaceuticals

There are 7 indicators. E.g.:

- the number of prescriptions according to which the reimbursable amount for the dispensed medicine is greater than 600 EUR
- the number of prescriptions, according to which the quantity of the dispensed medicine is greater than 300 units
- the average reimbursed amount per prescription is higher than the average reimbursed amount per prescription at the THIF activity area

Risk assessment indicators related to provision of reimbursable healthcare services

The assessment is carried out according to 11 indicators, e.g:

- the number of control procedures carried out during the last two calendar years, during which non-conformities were identified
- the number of control procedures carried out during the last two calendar years, during which damage to the CHIF budget was identified
- the number of cases of illegal charging of patient for health care services identified during the last two calendar years

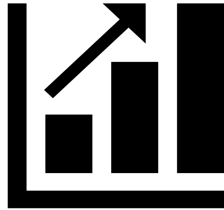
Risk assessment indicators related to provision of orthopedic equipment

There are 6 indicators. E.g.:

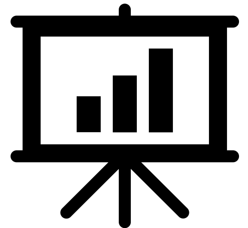
- the number of cases where more than 500 orthopaedic devices were produced based on the referrals of one doctor in the previous calendar year
- share (%) of referrals to produce the orthopaedic devices which reimbursable amount is greater than 1000 EUR, of the total number of referrals
- the number of cases when 5 or more orthopaedic devices are manufactured and issued to one patient during a calendar year

Ranking of institutions according to the degree of risk

1. the total score of each institution is determined in accordance with results of evaluation of individual risk assessment indicators
2. Institutions are ranked into the list, dividing them into groups according to risk levels:
   - 30 percent of the institutions with the highest ratings are considered belonging to high-risk level (the amount of collected points according to the risk indicators is the highest)
   - 30 percent of the institutions with the lowest ratings are considered belonging to low- risk level (the amount of the points assigned to them according to the risk indicators is the lowest)
   - 40 percent of institutions are considered as being of medium risk level



THE MAIN RESULTS OF THE CONTROL PROCEDURES



Number of consultations provided by THIF's in 2018-2021

	Vilniaus TLK	Kauno TLK	Klaipėdos TLK	Šiaulių TLK	Panevėžio TLK	Total
2018	63 504	46 350	19 874	31 860	11 531	173 119
2019	63 503	46 390	15 837	34 430	38 616	198 776
2020	62 744	46 400	17 977	30 670	14 104	171 895
2021	60 480	46 400	44 656	30 988	17 406	199 930

Real and „avoided“ losses to CHIF budget disclosed during monitoring and control procedures (EUR)

Year	Real losses	Avoided losses
2018	312 471	229 903
2019	325 825	601 531
2020	542 924	1 432 492
2021	465 798	1 032 058

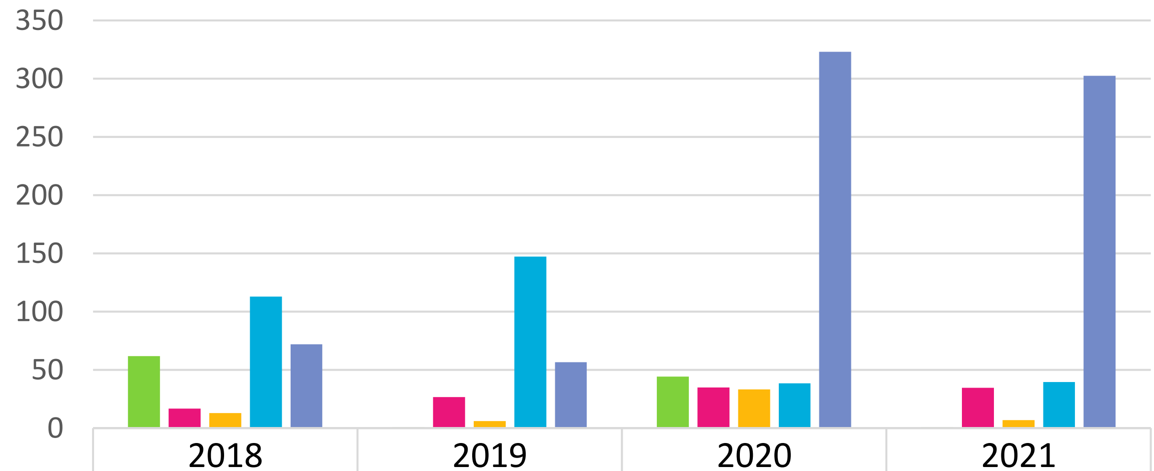
Total amount of Control Procedures performed by THIFs in 2018-2021

2018	2019	2020	2021
635	663	598	889

PLANING OF CONTROL PROCEDURES (objective range – not less than 65 %)

	Vilniaus TLK	Kauno TLK	Klaipėdos TLK	Šiaulių TLK	Panevėžio TLK	Total
2018	67	89	89	91	85	81
2019	70	90	82	77	80	78
2020	70	93	98	99	86	87
2021	96	96	90	97	99	96

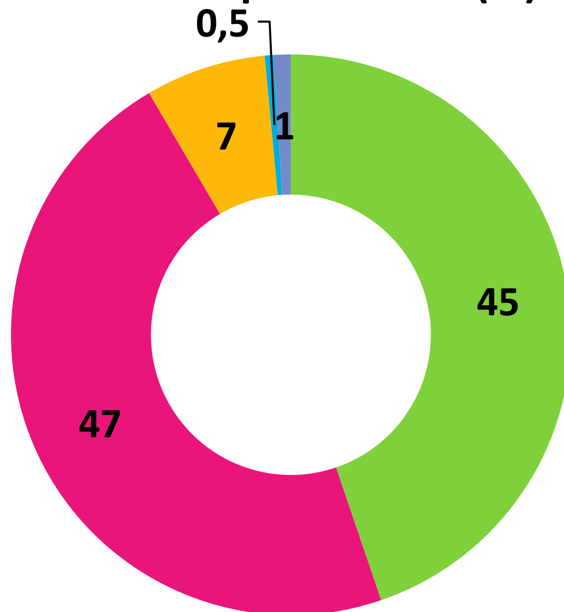
Highest-Loss Fields to the CHIF Budget (thousand EUR)



	2018	2019	2020	2021
Inpatient services	62	0,9	44,3	1
Pharmaceuticals	17	26,8	35	34,7
Primary care	13	6,1	33,3	7,1
Consultations	113	147,5	38,7	39,6
Day surgery and emergency room services	72	56,6	323,3	302,7

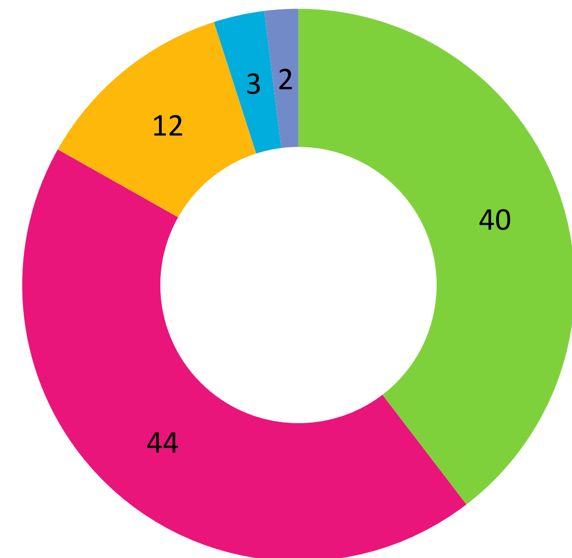
ANONYMOUS FEEDBACK SURVEY OF INSPECTED HEALTHCARE INSTITUTIONS (2021)

Evaluation of THIF performed control procedures (%)



Very good Good Average Bad Very bad

THIF check-up contributed to performance improvement (%)



Totally agree
Agree

Any questions?