



**THE NATIONAL SCHOOL OF PUBLIC HEALTH,
MANAGEMENT AND PROFESSIONAL
DEVELOPMENT, BUCHAREST
(NSPHMPDB)**

ACTIVITY REPORT
2016



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Summary

The activity of the National School of Public Health, Management and Professional Development, Bucharest (NSPHMPDB), in 2016, has been carried out according with the objectives of the annual Activity Plan, corresponding to the Institutional Development Strategy for 2016-2020. The results of the activities performed within the three main guidelines established in this Strategy highlight the achievement of the objectives for the year 2016, as following:

Organizing and providing training programmes for professional development relevant to existing needs, at the best possible quality

During the year 2016, NSPHMPDB has carried out a number of 7 training programmes in the field of public health and health services management, totalizing 26 series and 828 participants. NSPHMPDB have also organized 198 programmes of professional training and development in other fields than public health, totaling a number of 4154 participants.

Two of our training programmes have been so adjusted as to be able to better cover the training needs and in such a way as to be offered to several target groups of specialists in the health system: *the Quality Management in hospitals - program for the beginners*, and *the Role of Referring Physician in Blood Transfusion Safety at hospital level – program for clinician doctors*.

A number of seven new training programmes have been initiated, in accordance with the training needs as identified, out of which three have organized and finalized in 2016: *the Professional Development and Training Program for the hospital Evaluators*, *the Training Program in Hospital Quality Management for the presidents of hospital evaluation commissions*, *the Continuous Medical Education Program for Physiotherapists*. The other four training programmes, of *e-learning*, are to be launched in 2017.

Three of the existing training programmes have been updated from the point of view of their contents and/or teaching and organizing methods: *the Training Program in Hospital Management* dedicated to hospital managers, *the Training Program in Hospital Management* dedicated to hospital head nurses, *the Reporting, Contracting and Reimbursing the Hospital Services*, while the course curriculum for community nurses training program has been revised and updated.

In order to continuously improve the quality of training programmes, four regulations of organizing and providing the training programmes have been updated, in such a way as the course participants to benefit as adequate as possible of all the information and opportunities offered by our programmes.

Developing the scientific research activity and improving the capitalization of research results

During the year 2016, five projects financed through the European Commission programmes, have been carried on by the NSPHMPDB:

- PaSQ - “European Union Network for Patient Safety and Quality of Care” ;
- EUnetHTA JA2 - „European Network for Health Technology Assessment - Joint Action 2”;
- EUnetHTA JA3 - „European Network for Health Technology Assessment - Joint Action 3”;
- ADVANTAGE – “Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative“;
- CEPHOS-LINK - “Comparative Effectiveness Research on Psychiatric Hospitalization by Record Linkage of large Administrative data Sets”.

The selection of the scientific research themes has been done in accordance with the current needs of the Romanian health care system, or they were among the objectives of the National Health Strategy 2014-2020 (patient safety, reducing hospital readmissions), or they accounted for requirements alignment to EU health policies (such as health technology assessment), or responding to the needs for services as imposed by modifications of the health determinants (e.g. the phenomenon of demographic ageing).

Scientific research in the field of hospital services management has resulted in a new software application for data collection - DRGNational2016. Based on the quarterly analysis regarding the problems potentially impacting the reimbursement of hospital services, and other analysis required by various partners, a series of proposals for increasing the performance of health care providers, have been developed.

The results of scientific research have been disseminated through: 25 articles published, out of which 17 articles in ISI scientific journals, publishing three reports at international level, four scientific communications at international conferences and six communications at national conferences, 16 reviews of SR protocols or systematic reviews.

Experience and knowledge gained within the research projects have been capitalized both by improving the training programmes (in the field of patient safety and quality of care), and by consultancy and technical assistance provided to the National Authority for Quality Management in Health for elaborating the second edition of the hospital accreditation standards, as well as to the Ministry of Health, by participating in the technical working groups on various themes (for example, health technology assessment).

The procedures designed for the scientific research activities have been revised and updated, in order to continuously increase their quality.

Strengthening the institutional capacity for research and development of NSPHMPDB

In 2016, scientific research capacity of the NSPHMPDB has been improved by the professional development of two persons (employees), one in JBI methodology for systematic review, and the other one in utilization of relevant health information and generating evidences for health policy development. The training capacity has been augmented by training two persons as trainers for the subject „Health statistics and reporting hospital services”. Four employees have been trained for the purpose of getting new knowledge and skills for the institutional activity, respectively: „Data base analysis, calculating indicators and generating statistics on data bases of SQL Server type” and the operating of the e-learning program titled “Program Articulate Story line”.

In terms of an active implication and membership of NSPHMPDB in international organizations and networks, we have participated in the European Public Health Conference

on the subject „All for Health – Health for All”, and in the Annual Deans’ and Directors’ Retreat of ASPHER members, as well as to the activities within the EUnetHTA and JBI projects and network.

In order to organize e-learning programmes, the IT platform www.perfmed.ro has been developed. Meetings with lecturers have also been organized for presenting the perfmed.ro platform and recommendations regarding the structure of content for the e-learning education programmes.

In conclusion, NSPHMPDB did achieve the proposed objectives, standing on the principle of integrating the research, training, counseling or technical assistance that guides the institutional development of the School. Therefore, the results of the research projects have been capitalized effectively, either in consultancy offered to the health authorities or to hospitals, either in updating the training programmes.

I. Organizing professional training programmes relevant to existing needs, provided at the best possible quality

OBJECTIVES

- **Diversification of the programmes of training and professional development, dedicated to more target groups of specialists in the health system;**
- **Initiating new programmes of training and professional development, in accordance with the training needs as identified;**
- **Updating the existing training programmes in terms of content and/or teaching methods and organizing the course sessions (for example, distance learning), in order to meet the needs of course participants;**
- **Implementing the mechanisms and processes for continuous quality improvement of the training programmes.**

Training is one of the three main functions of the NSPHMPDB, along with the scientific research and technical assistance in the field of public health and health services management. Besides the training in public health and health management, NSPHMPDB also fulfills the function of organizing training and professional development programmes for the health professionals in the system, also in other subjects than public health.

Training and professional development activities are carried out at the level of each of the three technical structures of the NSPHMPDB:

- The Center for Management and Health Promotion (CMHP) carries out the training programmes in public health and health management
- The Center of Research and Evaluation of Health Services (CREHS) develops mainly the DRG training programmes, and also courses on other health services topics
- The National Center for Professional Development in Health (NCPDH) organizes programmes, courses, trainings and internships in other various areas of health.

In 2016, *the Center for Management and Health Promotion* has carried out a number of six training programmes, totalizing 24 series and 769 course participants, as shown in the Table 1 below.

Table 1. Number of series and number of participants per program types organized by the CMHP during 2016

No.	Program name	Program Code	Number of program series	Location	Number of participants
1	Certification in Health Services Management (medical doctors)	AT	3	Bucharest	128
			1	Timișoara	42
			1	Iași	56
			1	Galați	41
2	Hospital Management	MS	3	Bucharest	129
3	Quality Management in hospitals	MQ	5	Bucharest	140
4	Management for hospital head nurses	AMD	1	Bucharest	41
5	Professional development for hospital Evaluators	PEV	8	Bucharest	176
6	Training for the presidents of hospital evaluation commissions (NAQMH)	PCE	1	Bucharest	17
7	TOTAL		24		769

Regarding the Training Program for *Certification in Health Services Management*, there were six series of participants in 2016, out of which three in Bucharest, and one by Timișoara, Iași and Galați. Two series (Bucharest and Iași) have started in 2015, while the other two series (Bucharest and Timișoara) are to be finalized during the year 2017. The total number of participants in Training Program for Certification in Health Services Management in 2016, was 267.

In 2016, CMHP has organized and provided three course series within the Training Program *Hospital Management*, with 129 persons.

The Training Program *Quality Management in Hospitals* has been organized for five series, totalizing 140 participants.

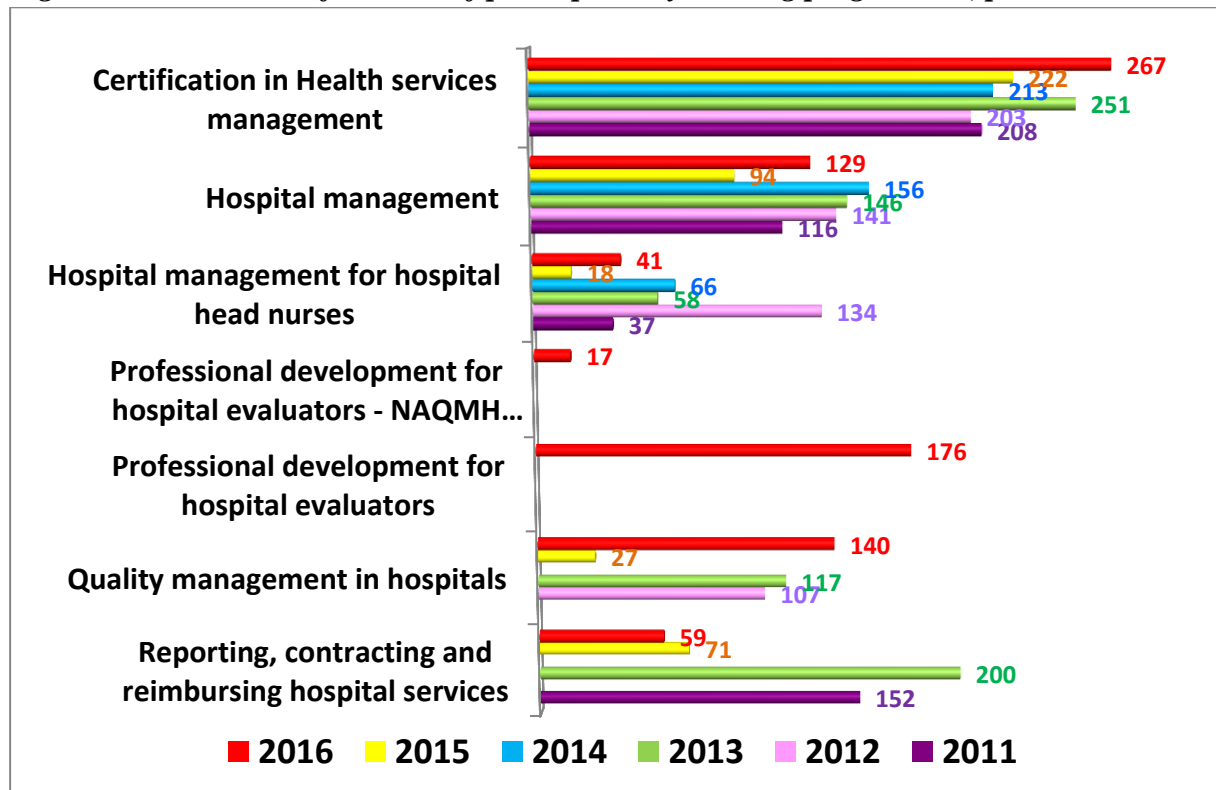
As within the Training Program *Management for Hospital Head Nurses*, there was one course series registering 41 participants.

As for the professional development *Program for the hospital Evaluators*, organized in cooperation with the National Authority for Quality Management in Health (NAQMH), there were eight course series of 176 participants. In response to request of the NAQMH, one training in *Quality Management in hospitals* has been organized for hospital evaluation commission presidents, gathering 17 participants.

The Center of Research and Evaluation of Health Services has carried out two training programmes in DRG, titled “*Reporting, Contracting and Reimbursing the Hospital Services*”, and totalizing a number of 59 participants.

Analyzing the evolution of the training programmes provided by the NSPHMPDB during the period 2011-2016 (Fig. 1), the increase in the number of training programmes and, in turn, the increase in the course number of participants, was found, in comparison with the previous years. The increase in the number of course participants is mainly a consequence of the new training programmes, but also of the increasing trend in the number de course participants especially for the program Quality Management in hospitals.

Figure 1. Distribution of number of participants by training programmes, period 2011-2016



The lecturers working in NSPHMPDB have taught a number of 1626 course hours, on the rise as compared to previous years 2015 and 2014 (of 1216 hours, respectively of 928 hours) representing 68% in the total of 2394 course hours achieved during the year 2016.

In 2016, The National Center for Professional Development in Health (NCPDH) has organized 198 of training programmes numbering 4154 participants, meaning 43 programmes and 629 participants more than during the previous year. Out of these, four programmes – e-learning programmes - have been conceptually developed, but there was no participant registered yet, thus being in organizing stage. The structure of training programmes and the number de participants in 2016 are presented in the table and figures below (Table 2, Fig. 2, Fig. 3).

Analysis of the NCPDH activity during the past three years indicates a significant increase in the total number of programmes in 2016 comparatively with precedent years (Fig. 4), due to the increased number de certification programmes and also CME programmes (continuous medical education) for nurses, EMTs (emergency medical technician) and caregivers, as well as new programmes such as CME Program for physiotherapists and e-learning programmes.

Table 2. Number of training programmes and participants per each program, in 2016 comparative to 2015

Program type	No. of programmes		No. of participants	
	2016	2015	2016	2015
Certification programmes	69*	55	1163	1402
MCE MDs, personnel of high education	28	18	1105	735
MCE nurses, EMTs, caregivers	39	27	898	527
MCE physiotherapists	7	-	128	-
Training of trainers, assessment of trainers	4	5	51	65
Specialization course for nurses**	22	22	729	649
Practical internships	25	28	80	85
E-learning***	4	-	-	-
Total	198	155	4154	3525

* 20 programmes started in 2015, 29 programmes entirely provided in 2016, and 20 programmes running

** programmes started in December 2015 - January 2016 and finalized in June 2016

***being in initiation phase.

Figure 2. Structure of training programmes organized by the NCPDH in 2016, per type

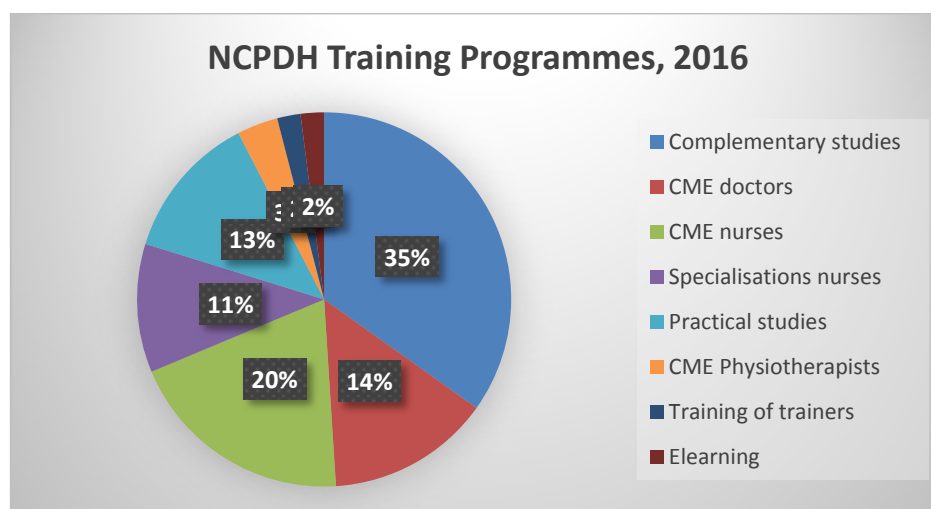


Figure 3. Distribution of course participants in the training programmes organized by the NCPDH in 2016, per each type of program

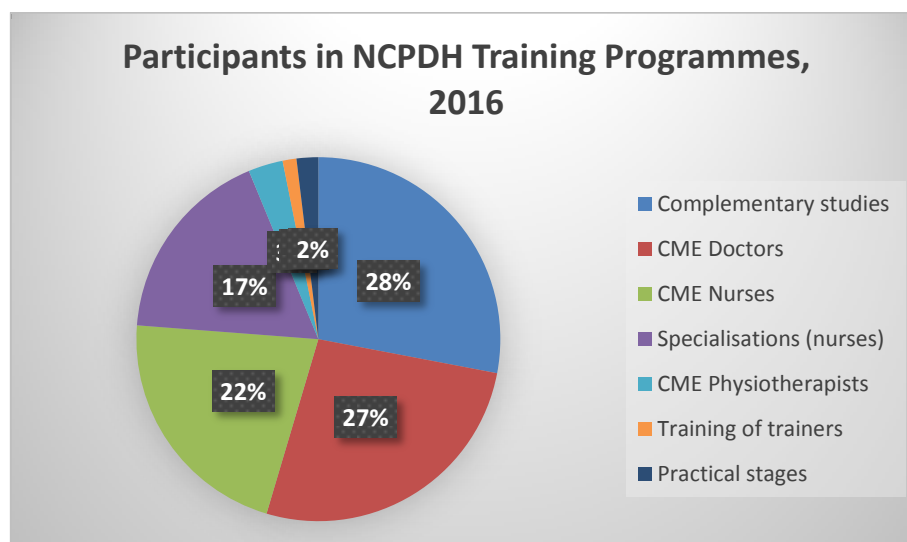
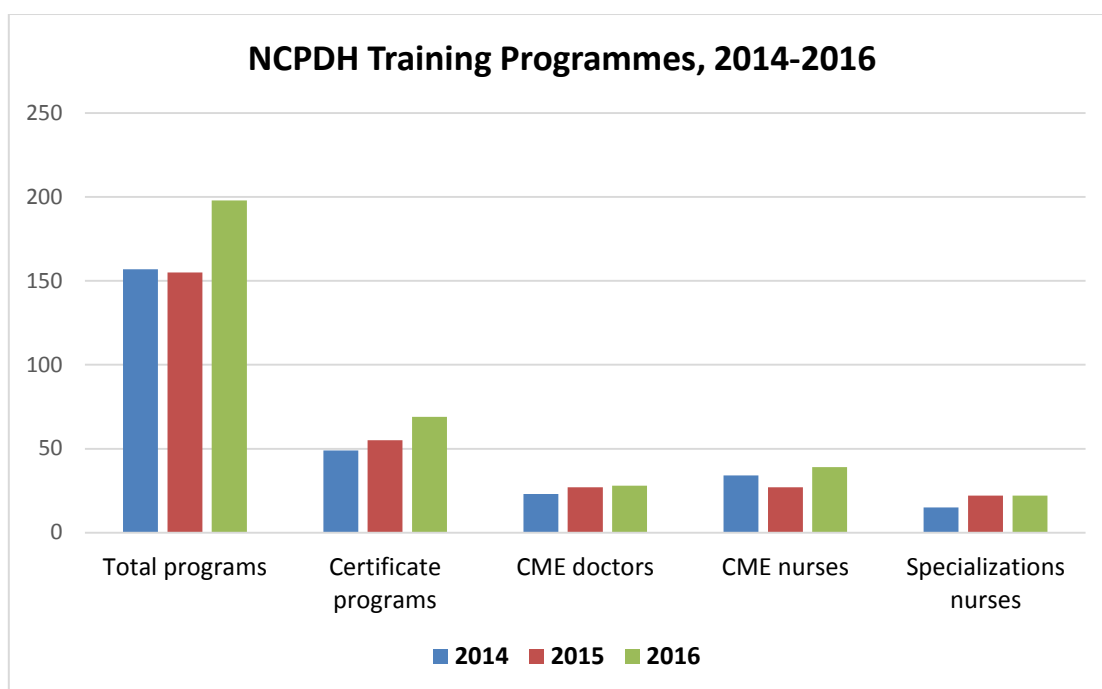
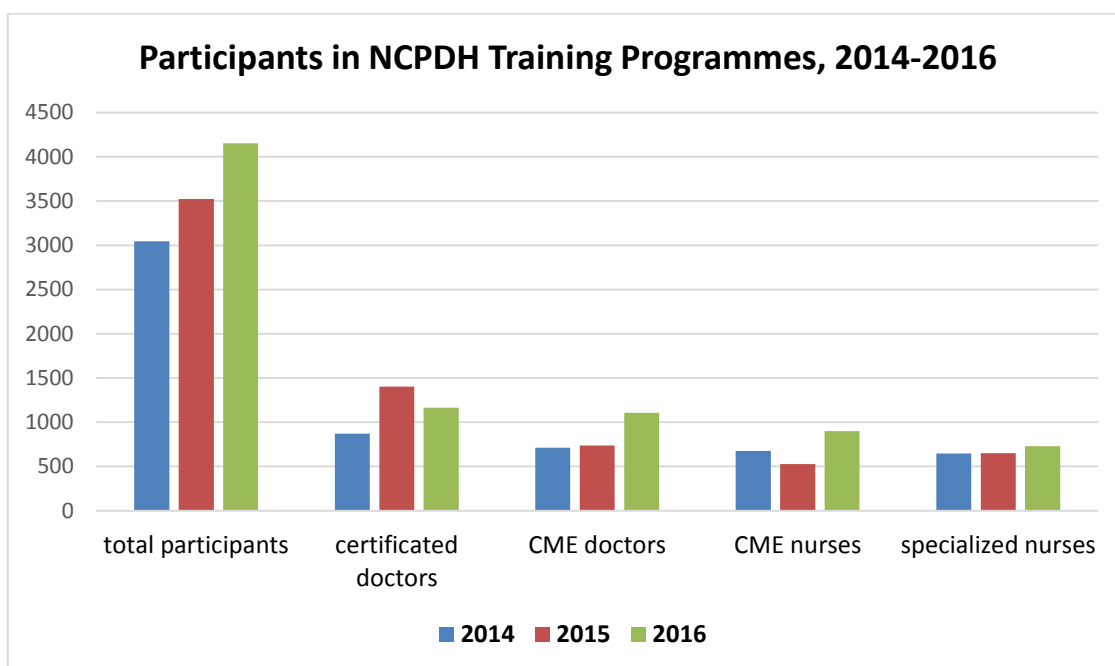


Figure 4. Evolution of number of training programmes organized by the NCPDH in the period 2014-2016, per type of program



Total number of participants in programmes organized by the NCPDH has registered a continuously increasing evolution in the past three years (Fig. 5). Per categories of participants, a significant increase of the number of participants in CME programmes was found in 2016, both among MDs, having a constant level of participation during precedent years, and among nurses, of a decreasing trend in 2015 in comparison with those in 2014.

Figure 5. Evolution of number of participants in programmes organized by the NCPDH in the period 2014-2016, per type of program



Degree of achieving the objectives set for the year 2016, in terms of organizing and providing programmes of training and professional development

- **Diversification of programmes of training and professional development dedicated to more target groups of specialists in the health system**

Training needs assessment among participants in programmes offered by *the Center for Management and Health Promotion* enhanced the need to differentiate and split the Training Program in *Quality Management in hospitals* in two sub-programmes, according to their level of knowledge and previous experience. In 2016, the course curriculum and structure of the Program *Quality Management in hospitals* have been adapted to a new version of training - for the beginners (persons without working experience in a hospital). This new program has started at the beginning of year 2017.

In 2016, *the National Center for Professional Development in Health* has organized the first two programmes for continuous medical education in transfusion hematology, on the subject „*Role of treating doctor in blood transfusion safety at hospital level*”, dedicated to clinician doctors, at both hospitals’ and physicians request, being credited by the Romanian College of Physicians. Until 2016, continuous medical education programmes on transfusion hematology, both as initial and continuous training, have been organized only for nurses.

- **Initiating new programmes of training and professional development in accordance with the training needs as identified**

The Center for Management and Health Promotion has finalized and carried on two types of new programmes in 2016, in cooperation with the National Authority for Quality Management in Health: *Professional development program for hospital evaluators*, and *Training Program in Quality Management in hospitals for NAQMH employees*, dedicated to the persons participating in the hospital evaluation process as presidents of the evaluation commissions.

The National Center for Professional Development in Health has initiated and organized in 2016 a new *continuous medical education program addressed to physiotherapists*. A new category of programmes has also been initiated: *e-learning programmes for continuous medical education*. For the first e-learning programmes, to be launched in 2017, four collaboration agreements have been signed and program design has been elaborated in order to organize the programmes. Titles of these programmes are as following:

1. *Introduction in dynamic evolution system in homeopathy*
2. *Prevention and management of medical malpractice cases*
3. *Earn time and trust in relationship with the patient*
4. *Fundamental principles in Indian traditional medicine – Ayurveda.*

- **Updating the existing training programmes in terms of content and/or teaching methods and organizing the course sessions (for example, distance learning), in order to meet the needs of course participants**

The Center for Management and Health Promotion has updated, in 2016, the training programmes in *Hospital Management* and *Hospital Management for hospital head nurses*. As a result of the project financed from structural funds – Operational Sectorial Program for Human Resources Development – “EFIACCES” ID 127671, conducted between 2014-2015, in collaboration with many partners at national level, a first revision of the training programmes for community nurses has been achieved in 2016.

The Center of Research and Evaluation of Health Services has updated the Training Program in DRG titled *Reporting, Contracting and Reimbursing the Hospital Services* and implicitly, the DRG module within the Hospital Management Program.

- **Implementing the mechanisms and processes for continuous quality improvement of the training programmes**

In 2016, a number of four Regulations for organization and provision of training and professional development programmes have been updated, by Decisions of the NSPHMPDB Administration Board. Modifications aimed the facilitation of registration process for course participants and possibilities for recuperation and/or equivalence of modules within the programmes’ structure, so that the course participants to be able to benefit to a greater extent from the information and opportunities offered through our training programmes.

I. Developing our scientific research activity and improving the capitalization of research results

OBJECTIVES

- **Selecting the research themes in concordance with the current needs of the Romanian health system, the priorities identified at European level and the expertise of the NSPHMPDB;**
- **Continuing the scientific research in hospital services management, through new studies of topical interest, by using the NSPHMPDB expertise and experience, and in accordance with the needs expressed by the main stakeholders (MoH, NHIF, NAQMH, hospitals);**
- **Training needs assessment in public health and health management, and performing impact studies as basis for the future training programmes;**
- **Appropriate dissemination and capitalization of the results of studies and research projects conducted by the NSPHMPDB;**
- **Improving the research methodologies, protocols and procedures in the NSPHMPDB.**

A number of five research projects, financed by the European Commission programmes, have been conducted on at the NSPHMPDB level, in 2016.

Four projects are carried on within the third EU Health Programme in Public Health (2014-2020), of the Directorate General for Health and Food Safety (DG SANTE), administrated by the European Commission with support of the Consumers, Health, Agriculture and Food Executive Agency (CHAFEA), as following:

- PaSQ 2012-2015, “European Union Network for Patient Safety and Quality of Care”, extended up to March 2016;
- EUnetHTA JA2 2012-2015, „European Network for HTA - Joint Action 2”, also extended up to March 2016;
- EUnetHTA JA3 2016-2020, „European Network for HTA - Joint Action 3”;
- ADVANTAGE 2016-2019, “Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative“.

One of the projects runs within the 7th Frame Program for Research and Technological Development (PC7) of the Directorate General for Research and Innovation (DG RTD):

- CEPHOS-LINK 2013-2016, “Comparative Effectiveness Research on Psychiatric Hospitalization by Record Linkage of large Administrative data Sets”.

“The European Union Network for Patient Safety and Quality of Care” (PaSQ)

Financing source: The European Commission - DG SANCO, and our own sources.

Project duration: three years (period 2012-2015), extended up to March 2016.

Partners: The project has been carried out by a consortium of 44 health organizations from 39 countries (28 EU members and Norway), in particular organizations responsible with the quality of medical services. NSPHMPDB represents Romania in this partnership. The project coordinator is “Haute Autorité de Santé” (HAS).

Network website: <http://www.pasq.eu/>

The goal of this project is to promote organization of patient safety and health quality platforms across all the European countries, through the exchange of information, experiences and implementation of good practices in patient safety and health quality.

The general objective of this project is to contribute to improvement of patient safety and quality of medical services, through supporting the implementation of the EC Recommendation for Patient Safety, cooperation between the member states, EU organizations in the field of quality and international organizations, for the issues concerning the quality of health services and patient safety. This will be achieved through the dissemination of knowledge, experiences and good practices, and by exploring their transferability between the countries, with support from the European Commission and other relevant organizations.

The specific objectives of this project are:

- Creating a mechanism for exchanging good clinical practices (SCP - safety clinical practices) in the field of patient safety and strategies for quality management at the level of health organizations (GOP - good operational practices) from member states;
- Creating a web platform to facilitate the exchange of SCP and GOP;
- Implementing good practices for safety and quality in the member states (following criteria of feasibility, transferability, patient involvement etc.);
- Collecting information concerning the impact of implementing good practices for quality and safety;
- Improving the mechanism of cooperation and exchange of good practices.

Expected results:

- Health professionals (clinician doctors, administrators, personnel in charge with Quality Management) will gain new knowledge and experience in safety clinical practices and will have the chance to exchange experience regarding these clinical practices. An interactive web tool and system for exchanging good practices and experiences, will be achieved. Through a broad collaboration between the countries, each project partner will be able to find those information and practices that match the best their specific context and needs of their clinic, hospital, etc.;
- A web platform of the best practices concerning the quality management systems, will also be created for health administrators, decision makers and health professionals, as well as a system for experience exchange, through collaboration between the member states expressing their availability to know or to share these experiences. Project partners will have the opportunity to choose which one of the quality management fields (accreditation,

risk management, patient involvement, etc.) are of interest for their specific country situation;

- The European Commission aims to support the collaboration between the member states, which provide added value for Europe, at national and regional level. As a result of recognition of this added value, the expected impact is the consolidation of permanent networks for patient safety in Europe.

NSPHMPDB has participated in the activities carried out within two working packages:

- WP 4 - Patient Safety Good Clinical Practices – defining, identifying, creating the mechanism for sharing good practices in clinical activity;
- WP 6 - Quality health care system collaboration – defining, identifying, creating the mechanism for collaboration and share good practices concerning Quality Management in health services.

NSPHMPDB has also participated in activities of the other working packages by revision of documents at request of project coordinators, as well as to the mechanism of exchanging experience both by participating and organizing national and international conferences, workshops for clinical doctors and decision makers, in order to present and discuss good clinical and management practices for patient safety.

The expected results with direct contribution of NSPHMPDB to the project, are as following:

- Glossary of terms concerning patient safety, elaborated;
- Questionnaires regarding clinical practices, quality management system, exchange good practices, and project sustainability, elaborated;
- Questionnaires validated, filled in;
- Literature review concerning good clinical practices, achieved;
- Romanian good clinical practices (SCP) and good practices in quality management systems (GOP), collected and uploaded on the project website;
- Participation to revision of the clinical practices according to recommendations from the manual of revision of patient safety practices; 13 clinical practices have already been revised;
- National workshop organized, within the experience exchange mechanism, with support from foreign experts, in order to acknowledge clinician doctors about the project and influence the decision makers to introduce patient safety strategies and practices;
- Participation to elaboration of a supporting document for Patient Safety as a priority for the European Commission, within the EC working group “Patient Safety and Quality of Care”, and also participating to the elaboration of a proposal for permanent collaboration for patient safety and health services quality, at the European Union level.

„European Network for HTA - Joint Action 2” (EUnetHTA JA2)

Financing source: The European Commission - DG SANTE and own sources.

Project duration: 3 years (2012-2015), extended up to March 2016.

Partners: The project EUnetHTA JA 2 has been conducted by a consortium of 51 de partners from 30 countries (28 EU member states, Norway and Switzerland), coordinated by the National Health Council (National Health Board) from Denmark. Besides these partners,

EUnetHTA network also number 18 associated members, which have participated in the scientific activities of network receiving no funds from the project.

Network website: <http://www.eunetha.eu/>

The project goal is to build and practice an effective and sustainable collaboration for health technology assessment (HTA) in order to get added value at the European, national and regional level.

Strategic objectives of the EUnetHTA JA2 are:

- Improving the utilization of health technology assessment process through an international collaboration approach in the HTA field;
- Strengthening and improving the collaboration within the EUnetHTA network in such a way, as to lead to a better understanding (from EC and the member states) of the methods for establishing a lasting HTA structure at the European Union level;
- Developing a general strategy that includes principles and proposals for implementing a sustainable collaboration at European level, in accordance with the provisions of Article 15 of the EC Directive related to the cross-border cooperation.

Expected results:

EUnetHTA JA2 is continuing a previous project, EUnetHTA Joint Action 1 (2010-2012), which has developed tools specific to the health technology assessment process. EUnetHTA JA2 has pursued the consolidation of these tools through transnational collaboration activities between the network members, resulting in three HTA reports produced using the standardized model, as elaborated in the first phase of the project (“Core Model HTA”), and afterwards, network members had to adapt and apply the model to existing conditions at their local level.

NSPHMPDB participated in three working groups within this project:

- WP2 - training and dissemination;
- WP4 - producing HTA reports through cross-border cooperation;
- WP8 - development of the HTA Core Model by producing HTA reports.

Project results acquired with direct contribution of the NSPHMPDB, are the following:

- Improvement of the training programmes dedicated to the utilization of the EUnetHTA tools and methods developed for health technology assessment, as elaborated in the first year of the project: Training Programme for employees working in the institutions partners in the project, and Programme for the HTA stakeholders (health technology’ producers, medical services’ providers, funders, patient associations etc.);
- Participation in training sessions dedicated to employees from the institutions partners in the project;
- Finalizing and testing materials specific to distance learning: webcasts, slidecasts, virtual class room;
- Completion of the training strategy for both the employees working in the institutions partners in project, and for other partners interested in the process of health technology assessment;

- Completion of the communication strategy inside and outside the project, elaborated in the first year of the project, periodically revised in order to ensure their relevance and in response to changes in external environment;
- Dissemination of project results through publication in 2014 of an interview with Mr. Finn Børlum Kristensen, the President of EUnetHTA Network, in the Management in Health journal;
- Participation to the elaboration of three HTA reports through international collaboration: “Fecal Immunochemical Test (FIT) vs. Fecal Occult Blood Test (FOBT) in Colorectal Cancer Screening”, ”Using Intravenous Immunoglobulin for the Treatment of Alzheimer Disease”, and ”Telemonitoring for Patients with Chronic Cardiovascular Diseases”;
- Elaboration of the National HTA report (one of the 40 HTA Reports elaborated at national level by adjusting the European reports to country-specific conditions). NSPHMPDB has adapted for Romania the Report “Fecal Immunochemical test (FIT) vs. Fecal Occult Blood test (FOBT) in Colorectal Cancer Screening”. This Report has also been uploaded on the EUnetHTA website, as well as on the NSPHMPDB website: <http://www.snspps.ro/images/download/fit%20versus%20fobt%20in%20screening-ul%20cancer%20colorectal.pdf>
- Improving the basic Core Model for health technology assessment (Core HTA Model);
- Testing and updating the on-line application for utilization of the HTA Core Model – elaboration of the version HTA Core Model online 3.0;
- Elaborating a policy for commercial license award;
- Identifying ways to support the development of HTA reports at national level.

„European Network for HTA - Joint Action 3” (EUnetHTA JA3)

Financing source: The European Commission - DG SANTE and own sources.

Project duration: four years (2016-2020).

Partners: The EUnetHTA JA 3 Project is conducted by a Consortium of 79 partners from 29 countries, coordinated by the National Health Care Institute from the Netherlands.

Network website: <http://www.eunethta.eu/>

The project goal is to implement a sustainable model of technical and scientific cooperation in health technology assessment at European level.

The strategic objectives of the EUnetHTA JA3 are:

- Improving the process of utilization of the HTA tools by approaching an international collaboration for HTA;
- Strengthening and improving the collaboration within EuNetHTA network, leading to a better understanding (by the EC and member states) of the methods for establishing a lasting HTA structure at European Union level;
- Develop a general strategy including principles and proposals for implementing a sustainable collaboration at European level, in accordance with the provisions of Article 15 of “The Directive for cross-border healthcare”;
- Creating an efficient collaboration framework for rapid health technology assessment;
- Homogenizing/standardizing the HTA Reports used for decisions concerning the reimbursement of health services and the elaboration of clinical guides for medical practice.



resulting in HTA reports.

Expected results:

Current collaboration is a continuation of the previous projects EUnetHTA JA1 and EUnetHTA JA2. This third phase is based on previous cooperation that resulted in a series of tools needed for cross-border collaborative activities between the HTA network members,

Main expected result is to define and implement a permanent, sustainable network for collaboration in health technology assessment in Europe. Additional results:

- Producing at least 50 HTA reports per year;
- Increasing the quality of the reports, adjusting and using the collaborative HTA reports at national level;
- Improve the decision making and elaboration of health policies at the level of member states on basis of the information disseminated, so that to protect the citizens against those health technologies not proved to be safe, nor effective, in the end conducting to a better health status of the population.

NSPHMPDB participate in 4 working groups within this project:

- WP4 - producing HTA reports through international collaboration;
- WP5 – improve the production of evidences;
- WP5 - quality management of the scientific tools and guides;
- WP5 - national implementation and impact evaluation.

Project activities carried on in 2016 with participation of the NSPHMPDB:

- Participate to the project meetings organized per each working package for setting the working plans;
- Elaboration the rapid assessment report in collaboration with other partners on the subject of “Antibacterial sutures vs. non-antibacterial sutures in preventing superficial and deep abdominal surgical site infections” – is to be finalized in 2017.

“Managing Frailty. A comprehensive approach to promote a disability-free advanced age in Europe: the ADVANTAGE initiative” (ADVANTAGE)

Financing source: The European Commission - DG SANTE and own sources;

Project duration: three years (2016-2019);

Partners: The project ADVANTAGE is conducted by a Consortium of 35 partners, coordinated by the Fundacion para la Investigacion Biomedica del Hospital Universitario de Getafe, of Spain.

The project goal is to achieve a mutual understanding of the condition and concept of “frailty”, to be further used across all the EU member states, and should be the basic for a mutual management, in individuals and elderly people group, fragile persons, or being at risk

of becoming frail. Identification of frailty basic components and its management should promote the need for change in organization and implementation of health care and social services, in order to provide models of care; results existing at national level would allow member states to cope with the challenges within a mutual framework.

Project objectives:

The project will summarize the current state of Frailty management, at both individual level and elderly people level, will collect information regarding programmes for approaching frailty in elderly, and will finally propose, as a main result, a mutual European model for approach a frailty. This result will include a roadmap setting the steps to be covered in time, on short, medium and long term. It will propose not just measurements/assessments for implementing health and social services (to cover the current unsatisfied needs, bigger in people at risk of frailty), but also using the same approach, will collect /identify lack of knowledge regarding this issue.



Specific Objectives of the project ADVANTAGE:

- Standardize Frailty assessment at individual level (definition, diagnosis);
- Identify clinical aspects, assess comorbidities;
- Identify frailty prevalence in population;
- Identify pathway and transitional stages of Frailty;
- Explore strategies, obstacles and opportunities;
- Review data management at individual level;
- Elaborate guides for prevention and clinical management;
- Identify and disseminate examples of good practice;
- Analyze the impact of individual care models;
- Transfer information and practices;
- Analyze integration of medical and social services;
- Cost - benefit analysis.

Expected results:

- Finding an operational definition of the term Frailty;
- Possibly standardized diagnosing;
- Identifying prevalence in population;
- Building the clinical pathway of the frail patients and define transitional stages of Frailty;
- Identifying strategies, obstacles and opportunities;
- Elaborating guides for prevention and clinical management;
- Dissemination of good practices;

- Results of the analysis of the integration between medical and social services;
- Results of the Cost-benefit analysis.

NSPHMPDB participate in this project within 4 working groups:

- WP2 – communication, appraisal and dissemination;
- WP4 – understanding the phenomenon at individual level;
- WP5 – understanding the phenomenon in elderly people group;
- WP6 – frailty management at individual level;
- WP7 – models of care for preventing or delaying the onset of frailty and resulting in a better life for elderly.

Activities carried on in 2016 with NSPHMPDB participation:

- Establishing the roles and specific activities for each partner institution within the joint action and planning the project activities.

“Comparative Effectiveness Research on Psychiatric Hospitalization by Record Linkage of large Administrative data Sets” (CEPHOS-LINK)

Financing source: The European Commission - FP7 and own sources.

Period: 3 years (2014 – 2017).

Partners: Consortium of seven partners from six European countries (Finland, Austria, Romania, Norway, Italy, Slovenia), under the coordination of the National Institute for Health and Welfare Finland.

Project Goal is to reduce hospital readmissions and support the continuity of care post-discharge for patients with mental disorders.

General Objective of the project is to compare various types of mental health services in terms of differences registered between results of hospital readmissions in adults discharged with psychiatric diagnostics and to identify factors related to patient, medical service or health system, possibly affecting the readmission models. This will be achieved through comparative analysis of data regarding daily practice in six European countries, therefore improve the level of knowledge and elaborate supporting tools for decision making in mental health.

Specific Objectives:

- Comparing, within an observational study, the results in terms of treatment, of hospital readmission of patients discharged with primary or secondary psychiatric diagnostic, in two different hospitals from six European countries:
 - treatment for patients of a psychiatry hospital / department;
 - treatment for patients of a non-psychiatric hospital / department and identify specific factors related to patient, medical service and health system, regarding hospital readmissions, within a 18-months-period.
- Comparing the results in patients discharged with primary or secondary psychiatric diagnostic from a psychiatry hospital / department from six European countries, having two different types of intervention post-discharge:
 - post discharge registration by an outpatient psychiatry service;

- absence of specialized medical assistance and identify the influence of it and of other readmission factors, within a 18-months-period.
- Develop a set of tools for performing this kind of register-based studies of mental health within and between European countries, in order to improve the evaluation of mental health services in Europe.
- Elaborate recommendations, practice guides and a set of tools for decision makers in mental health sector, in order to improve the understanding of factors influencing the hospital readmission of psychiatric patients.

Expected results:

- Systematic literature reviews;
- Elaborating guides, recommendations and supporting tools for decision makers in health mental services and systems.

Activities carried on by the NSPHMPDB in 2016:

- Coordination of local registration-based studies;
- Participation in data analysis and management;
- Participation in identify modeling methods;
- Participation in elaboration of modeling methods;
- Participation in evaluating the quality of data;
- Organization a workshop and participation with a paper in the EUPHA Conference (Vienna 2016).

Degree of attaining the objectives set for 2016 regarding the scientific research activity and capitalization of research results

- **Selecting the research themes in concordance with current needs of the Romanian health system, priorities identified at European level and NSPHMPDB expertise**

Research activity carried on by the NSPHMPDB is mainly focused on topics relevant at national and European level, and address priority fields such as:

- Patient Safety;
- Health technology assessment ;
- Demographic changes;
- Identify the needs for social and medical services consecrated to chronic diseases, frailty, disability and pathology of elderly;
- Efficient use of administrative data bases.

Patient safety is a subject of great interest at national level, as the specific objective of the National Health Strategy 2014-2020 is (O.S 5.4.) *Ensuring and monitoring the quality of public and private health services*. Measures envisaged in the Strategy in order to attain this objective: implementing the concept of patient safety at national level, as well as associated instruments/ procedures based on international evidences /good practices (OMS, UE), elaborating and implementing a national strategic plan of specific measures aimed to improve

patient safety, identifying clinical priorities and organizational management for patient safety, developing organizational culture of patient safety by involving quality departments from health facilities, developing education and training programmes in patient safety for medical personnel, developing research programmes related to patient safety.

Health technology assessment is another topic to be developed as national capacity, especially within the context of Article 15 of EC Directive regarding the cross-border healthcare, stipulating that each European Union member state will need to have a functional agency for health technology assessment, and these institutions will have to cooperate and exchange information within a European network. EUnetHTA Network, of which NSPHMPDB is also part, contributes to implementation of this Article.

Phenomenon of population ageing becomes more and more acute also in Romania. According to statistical data, the share of population of 65 years old and over this age has increased from 10.4% in 1990 up to 16.9% in 2014, while demographic ageing index increased from 103.0 (January 1st, 2015) up to 106.4 elderly people per 100 young persons (January 1st, 2016). Therefore, it is imperative in Romania to develop services specific to this age, both care services as well as promoting a lifestyle that ensures self independence and an active life up to higher ages.

The project CEPHOS-LINK responds to the needs of efficient use of administrative data bases, as well as to those provisions of the National Health Strategy stipulating that, during the period 2014-2020, decrease the share of hospital services will be pursued in favor of outpatient primary and secondary health services. Goal of the project is to develop a set of recommendations, practice guidelines and supporting instruments in decision making contributing to decrease of hospital readmissions and supporting the continuity of care post-discharge for the psychiatric patients.

- **Continuation of the research in hospital services management, through new studies of topical interest, using expertise and experience of NSPHMPDB, in accordance with the needs expressed by the main stakeholders (MoH, NHIF, NAQMH, hospitals)**

According to the laws in force, NSPHMPDB, by *the Center of Research and Evaluation of Health Services (CREHS)*, receives the clinical reports of all the Romanian hospitals in contract with the National Health Insurance Fund (NHIF), and manage the National DRG data base. Based on the contract signed with the NHIF, NSPHMPDB performs the following activities: electronic data collection regarding all patients discharged, validation and grouping the patients in DRGs; evaluate the activity and performance of health services providers; assess the quality of medical services, monitor the quality of data collected according to standards, propose methodologies for calculating the tariffs. CREHS experts also study and elaborate proposals to develop the patient classification systems, and methodologies for cost calculation, participate in elaboration of methods for adjusting the financing of health providers, criteria for assessing the management performance and tools for their comparative evaluation.

In 2016, the application DRGNational2016 for data collection, achieved in 2015 on basis of the research and analysis performed has been tested. Application has been made available to the hospitals along with the entry into force of the Framework Contract Norms for 2016. This Application uses a new information technology and it is compatible with the current operating systems. Modifications imposed by the legislative updates have been integrated in the same time.

Within the contract signed with the NHIF, 6 analysis and reports regarding the issues potentially impacting the reimbursement of hospital services have been quarterly achieved, as following:

Analysis:

- Analysis of the patients reported as emergencies, according to the criterion of hospital admission and pathology;
- The analysis “Top 50 hospitals reporting the largest proportion of expensive DRGs out of their total validated discharges”;
- Analysis on those reporting and coding errors signaling issues impacting the hospital reimbursement;
- Analysis of the top 10 surgical procedures generating the biggest differences in the classification of patients in terms of weighted cases;
- Analysis of the most frequent 20 types of cases and services reported as day care;
- Comparative analysis of the cases reported as day care and hospitalization, for pathologies or procedures suitable to day care.

Reports:

- Report regarding the proportion of patients by the criterion of hospital admission as „emergency”, per hospitals and per hospital wards;
- Report of monitoring CMI variation, as calculated for the acute care wards of hospitals newly entered in contract with the social health insurance fund during the precedent year, and not financed in the DRG system yet;
- Report on health facilities with highest rate of invalidation of their day care (first 50 hospitals) unto the number of cases reported to be validated by the NSPHMPDB;
- Report concerning the CMI achieved at hospital level, in regard to their values published in the Framework Contract Norms;
- Report concerning the variation of the complexity mix index achieved at the level of hospital ward, in regard to the national average calculated in that specialty;
- Top 10 diagnostics generating the highest differences in grouping the cases, at national level and dependent of the health insurance fund;
- Report regarding the evolution of hospital cases readmitted in 48 hours for the same pathology, in the same type of care.

Indicators for assessing hospital activity have been quarterly calculated and posted on the website www.drg.ro. Technical assistance and methodological support have been provided to 147 hospitals in average per month by phone (172 calls/month in average), by e-mail (55/month in average), and to 10 requests per month in average addressed by fax and visits to NSPHMPDB location. Technical assistance and methodological support have also been provided to the specialized employees working within the General Direction of

Monitoring and Control (GDMC) of the NHIF and district health insurance funds (DHIF) in regard to the quality of coding control in hospitals. 40 employees of the GDMC and DHIF have been trained, and 10 hospitals have been controlled by the NHIF.

Besides the analysis of hospital morbidity through the diseases impacting the hospital reimbursement, achieved within the contract with NHIF, other analysis have also been performed – for example the analysis of hospital morbidity through those diseases of high frequency of the cases admitted in Romanian hospitals (such as acute myocardial infarction, pneumonia, diabetes mellitus, TB), analysis of the avoidable hospitalized morbidity in Romania. These studies have also been published as scientific articles or communications (see Annex 1 and Annex 2).

DRG database is also used for various analysis requested by third parties within contracts or collaborations. In 2016, the following have been achieved:

- Analysis of data collected in DRG system regarding the number of hospital cases discharged and hospital episodes between years 2014 – 2015 for inferior limb amputation;
- Needs assessment of the medical services for persons suffering from spinal cord injury sequela;
- Statistics regarding the patients discharged during the year 2015 from hospital wards of pneumology, pneumno-phthisiology and sanatorium;
- Statistics regarding the patients with congenital rubella syndrome, during January 1st, 2012 - up to March 31st, 2016;
- Analysis of the hospital admission in Bucharest, both public and private hospitals, continuous and day hospitalization, during the years 2013-2015;
- Analysis of cases grouped in the MDC 14 Pregnancy, Childbirth and Puerperium (post-natal care), and the MDC 18 HIV, reported in continuous and day hospitalization during 2015, in the age groups of 15–19 years and 20–24 years, at national level;
- Analyzing the cases of complications of obesity reported by the acute care hospital wards, at national level, in order to find the impact of childhood obesity prevention (measures);
- Analysis of the continuous hospital care episodes of the cases diagnosed with spinal cord injury, at national level, in 2015.

In 2016, based on the Minister of Health Order no. 1580/22.12.2015, together with the National Institute of Public Health, NSPHMPDB has elaborated the Needs assessment for Health Services for each of the 8 development regions of Romania, and consequently, the Regional Health Services Plans, as parts of the Ex-ante Conditionalities committed to the European Commission through the Partnership Agreement signed by the Romanian Government. Elaboration of the regional plans including proposals for a new model of health services planning, centered on future regional hospitals, have been achieved by experts from the two institutions, together with World Health Organization experts, on basis of the study **Romanian health services at the level of year 2014**, focused on the analysis of health problems or health sectors, such as:

- Health status of the population;
- Primary health care;
- Secondary medical care (clinical and medical ambulatory);

- Hospital care;
- Hospital day care;
- Emergency units;
- Analysis of the human resources indicators in health sector.

NSPHMPDB expertise in the field of hospital management has been also exploited by providing technical assistance and methodological support for the evaluation of hospital managers in hospitals administrated by the Vâlcea County Council. Two NSPHMPDB experts have been assigned to participate in the evaluation commissions at County Council level.

- **Training Needs Assessment in public health and health management, and achieving impact studies aimed to document our future training programmes**

In 2016, *The Center for Management and Health Promotion* has analyzed the course curriculum for the Training Programme “Hospital Management”, as well as the curriculum for the Certificate Training Programme “Health Services Management”, from the perspective of aligning with the current legislative requests and new orientation at European Union level regarding the development strategy for health services, component of the European Programme Horizon 2020. Analysis of the course curriculum has also been achieved from the perspective of evaluation results of theoretical and practical knowledge of our participants in the two training programmes. Therefore, updating of the modules, structure and content of the course materials have been done for the two training programmes, thus improved by introducing new additional information regarding patient safety and continuity of care, increasing the focus on preparing and developing health management skills by enhancing applications.

Training needs assessment has been applied among the participants in the Training Program “Quality Management in Hospitals”. Evaluation of the theoretical and practical knowledge of participants in the first series of this training program has unfold the need for adapting the training according to the level of knowledge and previous work experience of the participants. Therefore, a new variant of the training programme has been created, to be launched at the beginning of year 2017, designed for the persons with no hospital work experience, or without health care knowledge.

- **Appropriate dissemination and capitalization of the results of studies and research projects conducted by the NSPHMPDB**

Main ways for disseminating research findings resulted from studies performed within our institution, are as following: scientific articles published in our journal and in other academic publications, as well as organizing and participating in various scientific events.

The journal *Management in Health* (<http://www.managementinhealth.com>) is a quarterly bilingual scientific publication, providing specialized information in general management and health management. Since 2010, the “Management in Health” journal has been classified in B+ category of publications with score of recognition by the National

Council for Scientific Research in Higher Education (CNCSIS). Endeavors to stand the journal in this category, and further to fulfill the conditions for a higher category, are continuing. In 2010, this journal was already included in international databases: Google Scholar, Index Copernicus, Directory of Open Access Journals (DOAJ). Since 2011, the journal is in ongoing ISI Thompson evaluation. In 2012, our journal has been included in SCOPUS and Elsevier international databases too. The journal is granted by the Romanian College of Physicians with 5 credits.

The volumes published in 2016 include 28 articles and four interviews. Five articles had authors or co-authors from NSPHMPDB, 14 articles have been written by foreign authors, while the interviews have involved great personalities in public health and health management, such as: Professor Jadranka BOZIKOV, Director of the Public Health School “Andrija Stampar” - School of Medicine, the Zagreb University, Croatia; Jeffrey LEVETT, public health Emeritus Professor in the National Public Health School Greece, and “international health” Professor within the United Nations University for Peace in Serbia; Dr. Vasile CEPOI, President of the National Authority for Quality Management in Health (ANMCS); Professor Dr. Horațiu SUCIU, the President of Mureș County College of Physicians.



Scientific activity of the NSPHMPDB in 2016 has been disseminated through the following:

- 25 published articles, out of which 17 were in ISI journals (see Annex 1);
- Publishing, in collaboration with the European Observatory on Health Systems and Policies, the paper “Romania: Health system review. Health Systems in Transition 2016”;
- Participating in elaboration of the international Report ESPAD 2015, titled “Results from the European School Survey Project on Alcohol and Other Drugs”, published by the European Monitoring Centre on Drugs and Drug Addiction;
- participate as co-authors and reviewers in achieving the Report HTA@Core Model on-line, on the subject “Structured telephone support (STS) impact on the emergency room visit rate (disease-specific) of adults with chronic heart failure, compared to standard care without Structured telephone support (STS)”, elaborated within the EUnetHTA Project;
- 4 scientific communications in international conferences and 6 communications in national conferences (see Annex 2);
- 16 protocol reviews / literature systematic reviews, within the JBI network - Joanna Briggs Institute (see Annex 3).

NSPHMPDB has used the experience and knowledge accumulated in scientific research activities fulfilled for improving the training programmes and in technical assistance provided to the Ministry of Health and other health institutions. Therefore, the work experience and knowledge in patient safety and quality of care acquired within the PaSQ Project, undertaken by the European Union Network for Patient Safety and Health Services Quality, of which NSPHMPDB is part of, have been used both for completing and updating the modules within our training programmes, as well as in the consultancy and technical assistance provided to the National Authority of Quality Management in Health in the process of elaboration of the second edition of Hospital Accreditation Standards.

As a result of participating in projects undertaken by the European Network for Health Technology Assessment (EUnetHTA), the NSPHMPDB also offer technical assistance and guidance in HTA to the Ministry of Health, participating with one representative in the technical working group built for supporting the development of an institutional framework for health technology assessment, and transition to a decision-making process evidenced-based, cost efficient and patient-centered.

NSPHMPDB expertise has also been requested for other technical working groups of the Ministry of Health in 2016, on the following subjects:

- mapping and modeling the health services;
- monitor and evaluate the implementation of the National Health Strategy 2014-2020;
- market research for setting the prices for generic drugs;
- elaborate the Action Plan for the implementation of the National Strategy for Health Human Resources Development 2017-2020;
- a strategy for developing the ambulatory health services;
- management contract and performance indicators for the hospital manager;
- private health insurance.

- **Improving the research methodologies, protocols and procedures used within the NSPHMPDB**

During the year 2016, the procedures regarding the scientific research and publishing of the *Management in Health* journal have been reviewed and updated, within the *Center of Research and Evaluation of Health Services*. The procedure for sustaining the requests for data analysis using the National DRG database has also been updated. And processes have been initiated for editing 6 new procedures and updating other 16 operational procedures related to the electronic data collection of hospital discharged patients, validation of this data and patient grouping in DRGs, evaluating the activity and performance of health care providers, assessing the quality of medical services and monitoring the pursuit of the quality standards for data collected.

II. Strengthening the institutional capacity for scientific research and development of the NSPHMPDB

OBJECTIVES

- **Training and professional development of the specialized personnel in order to enlarge the areas of excellence and to increase performance in the field of training and scientific research in public health and health management;**
- **Continuing the networking with experts and organizations of reference in public health education and research, at national and European/ international level;**
- **Ensure the technical equipment necessary in the modern processes of professional training, and primary and secondary scientific research (such as: platforms for distance learning, software packages for statistical analysis, access to databases and information sources etc.).**

The NSPHMPDB aimed to continuously strength the capacity for research and development, by training the personnel in new activities or in areas insufficiently covered by the existing staff, or by diversifying the services offered, or the way of performing our services. New knowledge and abilities are gathered through participating in projects, and also by developing and consolidating institutional partnerships signed with national and international partners. Therefore, in goal increasing the opportunities to participate in the elaboration and implementation of new research studies/ projects/ grants in partnership with other institutions at national and European level, NSPHMPDB intend to ensure a good visibility of their technical, scientific and institutional competencies.

- **Training and professional development of the specialized personnel in order to enlarge the areas of excellence and to increase performance in the field of training and scientific research in public health and health management**

7 specialists from NSPHMPDB have been provided with professional training in 2016, as following:

- two persons have participated in the training of trainers program in „Biostatistics and Hospital Services Reporting”;
- one person has been trained in „Database analysis, indicator calculating and SQL Server database statistics”;
- one person has been trained in “Comprehensive systematic review training programme” organized within our collaboration with JBI (ongoing course);



- one person has participated in “the Autumn School for Health Information and Evidence for Policy-making”, organized by WHO, with the purpose of improving the national capacity in using relevant health information and generating evidence in response to country specific questions and issues;

- three persons have participated in the E-learning Training Program “Articulate Story line”.

- **Continuing the networking with experts and organizations of reference in public health education and research, at national and European/ international level**

NSPHMPDB is a member of the main European associations aiming to improve the public health and health management, facilitating the exchange of experience and collaboration in scientific research and training, such as to ensure the development and implementation of the policies conducting to the improvement of health status of population and reduction of inequities:

- EUPHA - European Public Health Association;
- ASPHER - Association of Schools of Public Health in the European Region;
- EHMA - European Health Management Association.

In 2016, NSPHMPDB has participated in the European Conference of Public Health „All for Health - Health for All”, held in Vienna on November 8-12, with two papers: „Using hospital, available statistics in defining use patterns and health care needs”, and „Burden of hospital readmission of psychiatric patients for health systems” – the second one being presented within the workshop organized in the CEPHOS-LINK project financed by the European Commission through Programme FP7. Our institution is a partner in this project (Annex 2), and has also participated in the annual meeting of the EUPHA Executive Council.

The NSPHMPDB has also participated in 2016 in the ASPHER Annual Deans’ and Directors’ Retreat (on May 25-27, in Athens), where the role of public health schools in training the health personnel, and the basic competencies to be considered in public health training, have been discussed.

NSPHMPDB is also a member in European or international networks stated in the specific areas of scientific counseling in health, health technology assessment, evidence-based medicine, medical practice guidelines, with the purpose of exchanging experience and broadening the institutional frame in these fields.

- EUSANH - European Science Advisory Network for Health (founded in result of a research project financed by The European Commission through the Framework Programme 7 of the Directorate General for Research and Innovation - DG RTD, with participation of NSPHMPDB);



- EUnetHTA - European network for Health Technology Assessment;
- JBI - Joanna Briggs Institute (international network for research and development within the Adelaide Medical School from the University of Adelaide, in South Australia, in which NSPHMPDB is an affiliated centre, offering training courses in literature systematic review, and thus performing protocol systematic reviews and literature systematic reviews – see Annex 3);
- GIN - Guidelines International Network.

The main advantages of these collaborations are related to: the opportunity for the NSPHMPDB to participate in activities of international professional networks; increasing the NSPHMPDB visibility; possibility to access international funds through partnerships between the member organizations of those networks; access to libraries encompassing scientific reports, medical guidelines; exchanges of experience and practice in scientific research etc.

- **Ensure the technical equipment necessary in the modern processes of professional training, and primary and secondary scientific research (such as: platforms for distance learning, software packages for statistical analysis, access to databases and information sources etc.)**

In order to develop and organize e-learning programmes for continuous medical education, besides training three persons in using „Articulate Storyline Program”, in 2016 other endeavours have also been done: acquiring the necessary technology, developing and working the web platform perfmed.ro, meetings with trainers to present perfmed.ro platform and recommendations for the structure and content of e-learning education programmes.

In conclusion, NSPHMPDB has reached their objectives as proposed, by following the principle of integrating the research, training and technical assistance, as a valuable guidance in our institutional development. Therefore, the results of research projects have been capitalized as good as possible, either within the consultancy provided to the health authorities and hospitals, or by updating our training programmes.

Annex 1

Publications, 2016

No.	Paper Title	Authors	Journal	ISI/SJR Impact Factor	Other categories CNCSIS / BDI
Printed Scientific Articles					
1	Association of Mental Disorders with Subsequent Chronic Physical Conditions World Mental Health Surveys From 17 Countries	Scott KM., Lim CCW, Al-Hamzawi A, Alonso J, Bruffaerts R, Caldas-de-Almeida JM, Florescu S , de Girolamo G, Hu C, de Jonge P, Kawakami N, Medina-Mora ME, Moskalewicz J, Navarro-Mateu F, O'Neill S, Piazza M, Posada-Villa J, Torres Y, Kessler RC	<i>JAMA Psychiatry.</i> 2016;73(2):150-158	14.4	
2	The Bidirectional Associations Between Psychotic Experiences and DSM-IV Mental Disorders.	McGrath JJ, Saha S, Al-Hamzawi A, Andrade L, Benjet C, Bromet EJ, Browne MO, Caldas de Almeida JM, Chiu WT, Demyttenaere K, Fayyad J, Florescu S , de Girolamo G, Gureje O, Haro JM, Ten Have M, Hu C, Kovess-Masfety V, Lim CC, Navarro-Mateu F, Sampson N, Posada-Villa J, Kendler KS, Kessler RC.	<i>Am J Psychiatry.</i> 2016 Oct 1;173(10):997-1006. Epub 2016 Mar 17.	13.505	
3	Age of Onset and Lifetime Projected Risk of Psychotic Experiences: Cross-National Data From the World Mental Health Survey.	McGrath JJ, Saha S, Al-Hamzawi AO, Alonso J, Andrade L, Borges G, Bromet EJ, Oakley Browne M, Bruffaerts R, Caldas de Almeida JM, Fayyad J, Florescu S , de Girolamo G, Gureje O, Hu C, de Jonge P, Kovess-Masfety V, Lepine JP, Lim CC, Navarro-Mateu F, Piazza M, Sampson N, Posada-Villa J, Kendler KS, Kessler RC	<i>Schizophr Bull</i> 2016 Jul 2;42(4):933-41. Epub 2016 Apr 2.	7.757	
4	The cross-national epidemiology of DSM-IV intermittent explosive disorder.	Scott KM, Lim CCW, Hwang I, Adamowski T, Al-Hamzawi A, Bromet E, Bunting B, Ferrand MP, Florescu S , Gureje O, Hinkov H, Hu C, Karam E, Lee S, Posada-Villa J, Stein D, Tachimori H, Viana MC, Xavier M, Kessler RC	<i>Psychol Med.</i> 2016 Nov;46(15):3161-3172. Epub 2016 Aug 30.	5.491	
5	Mental disorders among college students in the World Health Organization World Mental Health Surveys.	Auerbach RP, Alonso J, Axinn WG, Cuijpers P, Ebert DD, Green JG, Hwang I, Kessler RC, Liu H, Mortier P, Nock MK, Pinder-Amaker S, Sampson NA, Aguilar-Gaxiola S, Al-Hamzawi A, Andrade LH, Benjet C, Caldas-de-	<i>Psychol Med.</i> 2016 Oct;46(14):2955-2970. Epub 2016 Aug 3.	5.491	

		Almeida JM, Demyttenaere K, Florescu S , de Girolamo G, Gureje O, Haro JM, Karam EG, Kiejna A, Kovess-Masfety V, Lee S, McGrath JJ, O'Neill S, Pennell BE, Scott K, Ten Have M, Torres Y, Zaslavsky AM, Zarkov Z, Bruffaerts R.			
6	The epidemiology of traumatic event exposure worldwide: results from the World Mental Health Survey Consortium.	Benjet C, Bromet E, Karam EG, Kessler RC, McLaughlin KA, Ruscio AM, Shahly V, Stein DJ, Petukhova M, Hill E, Alonso J, Atwoli L, Bunting B, Bruffaerts R, Caldas-de-Almeida JM, de Girolamo G, Florescu S , Gureje O, Huang Y, Lepine JP, Kawakami N, Kovess-Masfety V, Medina-Mora ME, Navarro-Mateu F, Piazza M, Posada-Villa J, Scott KM, Shalev A, Slade T, Ten Have M, Torres Y, Viana MC, Zarkov Z, Koenen KC	<i>Psychol Med</i> 2016 Jan 29;46(2):327-43. Epub 2015 Oct 29.	5.491	
7	Cross-national epidemiology of panic disorder and panic attacks in the world mental health surveys.	de Jonge P, Roest AM, Lim CC, Florescu S , Bromet EJ, Stein DJ, Harris M, Nakov V, Caldas-de-Almeida JM, Levinson D, Al-Hamzawi AO, Haro JM, Viana MC, Borges G, O'Neill S, de Girolamo G, Demyttenaere K, Gureje O, Iwata N, Lee S, Hu C, Karam A, Moskalewicz J, Kovess-Masfety V, Navarro-Mateu F, Browne MO, Piazza M, Posada-Villa J, Torres Y Ten Have ML, Kessler RC, Scott KM	<i>Depression and Anxiety</i> , 2016 Dec;33(12):1155-1177. Epub 2016 Oct 24.	5.004	
8	Associations between DSM-IV mental disorders and subsequent onset of arthritis	Aguilar-Gaxiola S, Loera G, Geraghty EM, Ton H, Lim CC, de Jonge P, Kessler RC, Posada-Villa J, Medina-Mora ME, Hu C, Fiestas F, Bruffaerts R, Kovess-Masfety V, Al-Hamzawi AO, Levinson D, de Girolamo G, Nakane Y, Ten Have M, O'Neill S, Wojtyniak B, Caldas de Almeida JM, Florescu S , Haro JM, Scott KM	<i>Journal of Psychosomatic Research</i> , March 2016, Volume 82, Pages 11–16	2.840	
9	A Cross-National Examination of Differences in Classification of Lifetime Alcohol Use Disorder Between DSM-IV and DSM-5: Findings from the World Mental Health Survey	Slade T, Chiu WT, Glantz M, Kessler RC, Lago L, Sampson N, Al-Hamzawi A, Florescu S , Moskalewicz J, Murphy S, Navarro-Mateu F, Torres de Galvis Y, Viana MC, Xavier M, Degenhardt L	<i>Alcoholism: Clinical and Experimental Research</i> Volume 40, Issue 8, pages 1728–1736, August 2016 (Epub 2016 Jul 18).	2.829	
10	Post-traumatic stress disorder associated	Stein DJ, Karam EG, Shahly V, Hill ED, King A,	<i>BMC Psychiatry</i> 2016 22;16:257. Epub 2016,	2.576	

	with life-threatening motor vehicle collisions in the WHO World Mental Health Surveys.	Petukhova M, Atwoli L, Bromet EJ, Florescu S , Haro JM, Hinkov H, Karam A, Medina-Mora M, Navarro-Mateu F, Piazza M, Shalev A, Torres Y, Zaslavsky AM, Kessler RC	Jul 22.		
11	Acute myocardial infarction hospitalizations in Romania, 2015	Ciutan M, Dosius M, Sasu C	<i>Management in Health</i> , XX/1/2016; pg. 30-34		BDI CNCSIS
12	Considerations on hospital morbidity by pneumonia, in Romania	Ciutan M, Sasu C, Dosius M	<i>Management in Health</i> , XX/2/2016; pg. 4-11		BDI CNCSIS
13	Assessing the level of professional satisfaction within the Clinical Hospital „St. Maria” Bucharest	Mihăescu-Pinția C, Ciutan M , Copca N	<i>Management in Health</i> , XX/2/2016; pg. 28-32		BDI CNCSIS
14	Hospitalized diabetes mellitus in Romania	Sasu C, Ciutan M, Mușat S	<i>Management in Health</i> , XX/2/2016; pg. 19-27		BDI CNCSIS
15	Hospitalized morbidity by TB in Romania	Ciutan M, Dosius M, Oancă R	<i>Management in Health</i> , XX/ 4/ 2016: pg. 20-28		BDI CNCSIS
Scientific Articles Published on line					
16	Undertreatment of people with major depressive disorder in 21 countries	Thornicroft G, Chatterji S, Evans-Lacko S, Gruber M, Sampson N, Aguilar-Gaxiola S, Al-Hamzawi A, Alonso J, Andrade L, Borges G, Bruffaerts R, Bunting B, Caldas de Almeida JM, Florescu S , de Girolamo G, Gureje O, Haro JM, He Y, Hinkov H, Karam E, Kawakami N, Lee S, Navarro-Mateu F, Piazza M, Posada-Villa J, Torres de Galvis Y, Kessler RC	<i>The British Journal of Psychiatry</i> Dec 2016, bjp.bp.116.188078; DOI: 10.1192/bjp.bp.116.188078	7.06	
17	Post-traumatic stress disorder associated with natural and human-made disasters in the World Mental Health Surveys.	Bromet EJ, Atwoli L, Kawakami N, Navarro-Mateu F, Piotrowski P, King AJ, Aguilar-Gaxiola S, Alonso J, Bunting B, Demyttenaere K, Florescu S , de Girolamo G, Gluzman S, Haro JM, de Jonge P, Karam EG, Lee S, Kovess-Masfety V, Medina-Mora ME, Mneimneh Z, Pennell BE, Posada-Villa J, Salmerón D, Takeshima T, Kessler RC	<i>Psychol Med.</i> 2016 Aug 30:1-15. [Epub ahead of print]	5.491	
18	Posttraumatic stress disorder associated with unexpected death of a loved one: Cross-national findings from the world mental health surveys.	Atwoli L, Stein DJ, King A, Petukhova M, Aguilar-Gaxiola S, Alonso J, Bromet EJ, de Girolamo G, Demyttenaere K, Florescu S , Maria Haro J, Karam EG, Kawakami N, Lee S, Lepine JP, Navarro-Mateu	<i>Depress Anxiety.</i> 2016 Dec 6. doi: 10.1002/da.22579. [Epub ahead of print]	5.004	

		F, O'Neill S, Pennell BE, Piazza M, Posada-Villa J, Sampson NA, Ten Have M, Zaslavsky AM, Kessler RC; WHO World Mental Health Survey Collaborators			
19	Burden of rehospitalisation of psychiatric patients for health systems	Scîntee G, Ciutan M, Sfetcu R, Vlădescu C	<i>Eur J Public Health</i> (2016) 26 (suppl 1) DOI: http://dx.doi.org/10.1093/eurpub/ckw170.058 ckw170.058 First published online: 4 November 2016.	2.751	
20	Using hospital, available statistics in defining use patterns and health care needs	Florescu S, Ciutan M, Mihăescu Pinția C, Popovici GD, Firuleasa IL, Sasu C, Oancă R, Dosius M, Vlădescu C	<i>Eur J Public Health</i> (2016) 26 (suppl 1) DOI: http://dx.doi.org/10.1093/eurpub/ckw174.002 ckw174.002 First published online: 4 November 2016	2.751	
21	The role of religious advisors in mental health care in the World Mental Health surveys	Kovess-Masfety V, Evans-Lacko S, Williams D, Andrade LH, Benjet C, Ten Have M, Wardenaar K, Karam EG, Bruffaerts R, Abdumalik J, Haro Abad JM, Florescu S , Wu B, De Jonge P, Altwajri Y, Hinkov H, Kawakami N, Caldas-de-Almeida JM, Bromet E, de Girolamo G, Posada-Villa J, Al-Hamzawi A, Huang Y, Hu C, Viana MC, Fayyad J, Medina-Mora ME, Demyttenaere K, Lepine JP, Murphy S, Xavier M, Takeshima T, Gureje O	<i>Social Psychiatry and Psychiatric Epidemiology</i> November 2016 doi:10.1007/s00127-016-1290-8	2.513	
22	Health conditions and role limitation in three European Regions: a public-health perspective	Barbaglia G, Adroher ND, Vilagut G, Bruffaerts R, Bunting B, Caldas de Almeida JM, Florescu S , de Girolamo G, de Graaf R, Harol JM, Hinkov H, Kovess-Masfety V, Matschinger H, Alonso J	<i>Gaceta Sanitaria</i> · October 2016 DOI: 10.1016/j.gaceta.2016.07.008 http://www.gacetasanitaria.org/es/health-conditions-role-limitation-in/avance/S0213911116301662/	1.51	
23	The descriptive epidemiology of DSM-IV Adult ADHD in the World Health Organization World Mental Health Surveys.	Fayyad J, Sampson NA, Hwang I, Adamowski T, Aguilar-Gaxiola S, Al-Hamzawi A, Andrade LH, Borges G, de Girolamo G, Florescu S , Gureje O, Haro JM, Hu C, Karam EG, Lee S, Navarro-Mateu F, O'Neill S, Pennell BE, Piazza M, Posada-Villa J, Ten Have M, Torres Y, Xavier M, Zaslavsky AM, Kessler RC; WHO World Mental Health Survey Collaborators.	<i>Atten Defic Hyperact Disord.</i> 2016 Nov 19. [Epub ahead of print]	0.871 (SJR)	

24	Geographical Distribution of Avoidable Hospital Conditions in Romania	Ciutan M, Scîntee SG, Dosius M, Mototolea C, Vlădescu C	<i>Procedia Environmental Sciences</i> Volume 32, 2016, Pages 318–326 ECOSMART - Environment at Crossroads: Smart Approaches for a Sustainable Development http://www.sciencedirect.com/science/article/pii/S1878029616001821		BDI
25	Potentially Life-threatening Vascular Events (Myocardial and Cerebral Infarction) - Geographical Distribution and Temporal Evolution in Romania	Sasu C, Ciutan M, Scîntee SG, Muşat S, Diaconescu R	<i>Procedia Environmental Sciences</i> Volume 32, 2016, Pages 327–336 ECOSMART - Environment at Crossroads: Smart Approaches for a Sustainable Development http://www.sciencedirect.com/science/article/pii/S1878029616001845		BDI

Books/ Book chapters/ Reports

No.	Book/ Chapter / Report Title	Authors	Editor/Coordinator	Publicshing house/ website
1	Romania: Health system review. Health Systems in Transition.	Vlădescu C, Scîntee SG, Olsavszky V, Hernández-Quevedo C, Sagan A	World Health Organization 2016 (acting as the host organization for, and secretariat of, the European Observatory on Health Systems and Policies, Health Systems in Transition).	2016; 18(4):1–170. http://www.euro.who.int/data/assets/pdf_file/0017/317240/Hit-Romania.pdf
2	ESPAD Report 2015 Results from the European School Survey Project on Alcohol and Other Drugs	Kraus L, Guttormsson U, Leifman H, Arpa S, Molinaro S, Monshouwer K, Trapencieris M, Vicente J, Arnarsson AM, Balakireva O, Bye EK, Chileva A, Ciocanu M, Clancy L, Csémy L, Djurisic T, Elekes Z, Feijão F, Florescu S, Pejnović Franelić I, Kocsis E, Kokkevi A, Lambrecht P, Urdih Lazar T, Nociar A, Oncheva S, Raitasalo K, Rupšien L, Sierosławski J, Skriver MV, Strizek J, Sturua L, Toçi E, Veresies K, Vorobjov S, Weihe P, Noor A, Matias J, Seitz NN, Piontek D, Svensson J, Englund A, Hibell B	European Monitoring Centre on Drugs and Drug Addiction	Luxembourg: Publications Office of the European Union, 2016, ISBN 978-92-9168-918-7, doi:10.2810/022073
	Does Structured telephone support (STS) impact on the emergency room visit rate (disease-specific) of adults with chronic heart failure, compared to standard care without Structured telephone support (STS)?	<i>Authors:</i> Mirjana Huic, Pernilla Östlund, Romana Tandara Hacek, Jelena Barbaric, Marius Ciutan, Cristina Mototolea, Silvia Gabriela Scîntee <i>Internal reviewers:</i> J. Puñal, J. Gonzalez-Enriquez, H. Stürzlinger, A. Lo Scalzo, S. Maltoni	EUnetHTA	https://mekat.thl.fi/htacore/ViewResultCard.aspx?p=305&e=735

Annex 2

Papers presented in 2016

Communications in international scientific events

No.	Paper Title	Authors	Event	Organizer	Date, Place
1	Burden of hospital readmission of psychiatric patients for health systems	Scintee G, Ciutan M, Sfetcu R, Vlădescu C	9 th European Public Health Conference „All for Health – Health for All” Work-shop: CEPHOS-LINK - European pooling of psychiatric rehospitalisation data: from diversity to comparability	EUPHA/ CEPHOS-LINK Project	November 9-12, 2016, Vienna
2	Using hospital, available statistics in defining use patterns and health care needs	Florescu S, Ciutan M, Mihăescu-Pinția C, Popovici GD, Firuleasa IL, Sasu C, Dosius M, Oancă R, Vlădescu C	9 th European Public Health Conference „All for Health – Health for All” Poster walk: Quality and efficiency in hospitals	EUPHA	November 9-12, 2016, Vienna
3	Drafting the Regional Plans for Health Services in Romania: Health Data Analysis	Vlădescu C, Geană A	Autumn School on Health Information and Evidence for policy-making Lunch presentation	WHO	October 24 – 28, 2016, Bucharest
4	Organizing the hospital for the purpose of improving the quality of services	Geană Adina	Seminar for training the experts from the Republic of Moldova in the field of evaluation/accreditation in health	REPEMOL Project	July 15-16, 2016, Chișinău (Moldova)

Communications at national events

Nr. crt.	Paper title	Authors	Event	Organizers	Date, place
1	Health Systems in Transition: Romania 2016	Cristian Vlădescu	National Conference on Pharmacoeconomics and Health Management	University of Medicine and Pharmacy Târgu Mureș	October 6-9, 2016, Târgu Mureș
2	Hospital activity analysis for modelling the hospital services at regional level	Vlădescu C, Geană A	National Conference on Pharmacoeconomics and Health Management	University of Medicine and Pharmacy Târgu Mureș	October 6-9, 2016, Târgu Mureș
3	2015 ESPAD Survey Methodology	Silvia Florescu	Conference for launching the results of ESPAD 2015 “The National Study on prevalence of alcohol, tobacco and drugs use in schools and level of knowledge, attitudes and practices related to drugs, alcohol and tobacco use, Internet use and gambling among students”	Ministry of Internal Affairs	September 26, 2016, Bucharest
4	Role of the provision with ambulatory specialized services in increasing the efficiency of health systems	Silvia Gabriela Scîntee	Conference „Ambulatory specialized medical care” – within the Project Smart in Health	Romanian Alliance for Chronic Patients	August 4, 2016, Bucharest
5	Criteria for selecting a health insurance system	Silvia Gabriela Scîntee	Conference „Health insurance - public versus private” – within the Project Smart in Health	Romanian Alliance for Chronic Patients	June 30, 2016, Bucharest
6	Structure of the medical package: risks and perspectives	Adina Geană	Conference „Basic Health Package” – within the Project Smart in Health	Romanian Alliance for Chronic Patients	January 28, 2016, Bucharest

Annex 3

Systematic Reviews and Systematic Review Protocols – contributions of NSPHMPDB experts within the collaboration with the JBI during 2016

	Reviewer	Paper reviewed	Paper type	Date reviewer agreed	Date review submitted
1	Silvia Gabriela Scîntee	Action research methodology in the healthcare field: a scoping review	Systematic review protocol	December 20, 2016	December 22, 2016
2	Constanța Mihaescu-Pinția	The effectiveness of utilizing promotoras to increase breast and cervical cancer screening participation in Hispanic women: a systematic review protocol	Quantitative systematic review protocol	December 16, 2016	December 20, 2016
3	Anca Cristina Lupan	Action research methodology in the healthcare field: a scoping review	Systematic review	October 18, 2016	November 17, 2016
4	Ingrid-Laura Firuleasa	Mental practice for chronic pain in people with spinal cord injury: a systematic review protocol	Systematic review protocol	September 25, 2016	October 21, 2016
5	Silvia Florescu	The clinical effectiveness, cost effectiveness and acceptability of community based chronic hepatitis C management: a mixed methods systematic review protocol	Systematic review protocol	October 6, 2016	November 5, 2016
6	Mona-Victoria Moldovan	Indicators to measure prehospital care quality: a scoping review protocol	Systematic review protocol	September 19, 2016	October 16, 2016
7	Constanța Mihaescu-Pinția	The effectiveness of non-pharmacological interventions to treat orthostatic hypotension in the elderly and people with a neurological condition: a systematic review protocol	Quantitative systematic review protocol	July 8, 2016	July 20, 2016
8	Mihaela Gălăon, Ingrid-Laura Firuleasa	The effectiveness of robotic assisted rehabilitation for mobility and functional ability in adult stroke patients: a systematic review protocol	Systematic review protocol	June 30, 2016	July 25, 2016
9	Carmen Angheluță	The effectiveness of education or behavioral interventions on adherence to phosphate control in adults receiving hemodialysis: a systematic review	Systematic review	February 29, 2016	March 28, 2016
10	Georgeta Popovici	Healthcare professionals' experiences of providing palliative care to patients presenting to emergency departments at the end-of-	Systematic review protocol	February 29, 2016	March 11, 2016

		life: a qualitative systematic review protocol			
11	Silvia Gabriela Scîntee	The effectiveness of meaningful occupation interventions for people living with dementia in residential aged care: a systematic review	Systematic review	February 22, 2016	March 21, 2016
12	Mona Victoria Moldovan	New midwives' experience and perception of social support during the transition from student to registered midwife: a qualitative systematic review protocol	Systematic review protocol	February 12, 2016	March 11, 2016
13	Marius Ciutan	The effectiveness of probiotics in reducing the incidence of Clostridium difficile-associated diarrhea in elderly patients: a systematic review	Systematic review	February 11, 2016	March 10, 2016
14	Silvia Florescu	Factors associated with hospice patients or their caregivers choosing aggressive forms of medical treatment vs. routine care: a systematic review protocol	Systematic review protocol	February 5, 2016	March 4, 2016
15	Mihnea Șerban Dosius	Effectiveness of ketamine as an adjuvant to opioid-based therapy versus opioid-based therapy alone in decreasing perioperative pain associated with opioid tolerance in adults undergoing orthopedic surgical procedures: a systematic review protocol	Systematic review protocol	January 28, 2016	February 4, 2016
16	Silvia Florescu	Effectiveness of bright light therapy on depressive symptoms in older adults with nonseasonal depression: a systematic review protocol	Systematic review protocol	December 15, 2015	January 12, 2016