

INTEGRATION

OF PUBLIC HEALTH SERVICES
INTO PRIMARY HEALTH CARE

7th INTERNATIONAL PUBLIC HEALTH
CONFERENCE, ALBANIA

23 MARCH 2021



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 World Health
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7th INTERNATIONAL PUBLIC HEALTH CONFERENCE, ALBANIA, 2021

“Integration of Public Health services into Primary Health Care”

TIRANA, 23 MARCH 2021



Organization

The International Public Health Conference is organized by the Institute of Public Health under the auspices of the Albanian Ministry of Health and Social Protection.

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International Public Health Conference

The 7th International Public Health Conference is themed “Integration of Public Health services into Primary Health Care” and it is held on 23 March 2021 in Tirana, Albania.

The Primary Health Care mission implies focusing on the community health and not only on individual health. An important part of services delivered in Primary Health Care institutions should aim at preventing diseases and promoting health. On the other hand, a series of public health programs, for both communicable and chronic diseases control (vaccination, education, surveillance, screening for non communicable disease) reach out community members through PHC services.

Primary Health Care is considered central in Albanian Health System efforts to control diseases and protect the health of all citizens. The overwhelming majority of the population takes contact with the health system at the level of Health Centers and many health problems are solved by general practitioners or even nurses in primary health care settings. Some of the most important recent interventions in health such as check-up program, are focused at Primary Health Care and are aiming to strengthen the culture of prevention and assure universal access to essential services for all the population. Still, Primary Health Care services are requiring more support and adaptations to meet the needs related to demography, social changes and the health care seeking behavior of public.

It is the first time a national public health conference is dedicated to Primary health care in Albania. This conference will offer an excellent opportunity to discuss about challenges Primary Health Care is facing in Albania; the demographic and epidemiological changes, prevention of non communicable diseases, increased expectations from health care, along with high risks of widening inequalities.

In the conference can be shared a wide range of research, encompassing maternal and child health, non communicable disease comprehensive control, or older people health needs and care. Primary health care, provides a unique medium to integrate all these issues, which otherwise can be seen as different disciplines.

Conference would address another emerging issue primary health care is facing in Albania; the need for integration of health social services to adapt to the specific needs of vulnerable populations (isolated elderly, people with disabilities, Roma community, etc). Both services need to be more coordinated and integrated.



The efficiency of relations between new health care local units (ex. Directories of Public Health) and health centers would be given space for discussion while highlighting ways for better coordination in the field of disease prevention, and assessment of vulnerable and risked groups.

Conference will bring together professionals from various fields, including public health primary health care and social protection and allow them to share experiences and discuss research findings, covering innovative models of services to be developed, efficient systems of management and information for better and more evidence based policies and practices.

Lastly, in the conference will be shared information about the contribution of primary health care in the emergencies such as current Covid-19 pandemic, as well as ideas about PHC adaptation to the long term post Covid-19 effects.

Conference venue:

Rogner Hotel Tirana

“Bulevardi Dëshmorët e Kombit”, Tirana, Albania

Organization

The International Public Health Conference is organized by the national Institute of Public Health under the auspices of the Albanian Ministry of Health and Social Protection.

Acknowledgments

This Conference is supported by the following United Nations agencies operating in Albania: the World Health Organization (WHO), the United Nations Children’s Fund (UNICEF) and the United Nations Population Fund (UNFPA).

Furthermore, this conference is supported by the Swiss Agency for Development and Cooperation (SDC) and Health for All Project (HAP), Tirana, Albania.

In particular, special thanks to all members of the Scientific Committee, the Organizing Committee and the Secretariat for their hard work.

Conference Programme

8.00 - 09.00	Registration of Participants and Virtual Poster Presentation	
	Opening session of the 7th International Public Health Conference	
09.00 - 09.45	Welcome address by the Director of the Institute of Public Health	Prof. Asc. Albana Fico
	Welcome address by the Ministry of Health	Deputy Minister of Health, Prof. Mira Rakacolli
	Welcome address by WHO Representative and Head of WHO Country Office in Albania	Dr. Gerald Rockenschaub
	Welcome address by University of Medicine, Tirana	Prof. Arben Gjata
	PLENARY SESSION: Moderator: Prof. Asc. Albana Fico	
09.45 - 10.00	Challenges and achievements for primary health services in Albania. Towards more preventive care for all.	Prof. Asc. Alban Ylli, IPH
10.00 - 10.20	The PHC approach bringing together primary care and public health services towards improved population outcomes.	Dr. Anna Myrup, WHO European Centre for Primary Health Care, Almaty
10.20 - 10.45	Public health and individual-based approaches to hypertension control at the crossroads of primary health care	Prof. Pascal Bovet, TPH, Switzerland
10.45 - 11.00	Delivering Universal Access to SRH in Eastern Europe and Central Asia: Focus on Primary Health Care	Dr. Tamar Khomasuridze, UNFPA Regional Office for Eastern Europe and Central Asia
11.00 - 11.15	Slovenian Public Health and Primary Health Care	Dr. Tanja Mate, MoH, Slovenia
11.15 - 11.30	Break	
11.30-13.15	PARALLEL SESSION 1 Topic: Successful PHC strategies: effective integration of PH functions into PHC	
		Moderators: Dr. Tanja Mate Dr. Gazmend Bejtja
11.30 - 11.45	The advantages and drawbacks of treatable mortality as an indicator of health system performance in Europe	Dr. Rok Hrzic, Netherland
11.45 - 12.00	Primary health care system in Kosovo	Dr. Albana Morina, Kosovo
12.00 - 12.15	Disease Prevention and Health promotion- the past and the future	Prof. Vesna Bjegovic- Mikanovic, Serbia
12.15-12.30	Patients' satisfaction with the model of family practice at the Primary Healthcare Family Center in Vushtrria, Kosova	Ms. Anjezë Haradinaj, Kosovo
12.30-12.45	SEEHN (Western Balkans and beyond) potential to advocate for better integration of primary health care and public health in face of COVID-19 pandemic	Dr. Mira Jovanovski-Dasic, North Macedonia

12.45-13.00	Integration of Tuberculosis services with Primary health Care Operational Plan	Dr.Donika Bardhi, IPH
13.00-13.15	Discussion	
11.30-13.15	PARALLEL SESSION 2 Topic: The vulnerable groups and their access to PHC services	Moderators: Prof. Gentiana Qirjako Prof. Merita Berisha
11.30-11.45	Strengthening health promotion and education in primary health care in Kosovo	Prof. Merita Berisha, IPH, Kosovo
11.45-12.00	Implementing an online intervention (iCBT) for depression in Kosovo: involving family doctors as partners	Prof. Asc.Naim Fanaj, Kosovo
12.00-12.15	The changing role of family health nurses in response to Covid-19.	Prof. Asc. Jolanda Hyska, IPH
12.15-12.30	Breastfeeding for the neonates admitted to NICU during COVID-19 pandemic. Results from UHOG "KoçoGlozheni" in Tirana	Prof. Asc. Alketa Hoxha, UMCT
12.30-12.45	Focus on Primary Health Care and UNICEF's work in Albania	Dr. Mariana Bukli, UNICEF
12.45-13.00	HIV- SARS COV-2 coinfection during Covid-19 epidemic in Albania	Dr.Marjeta Dervishi, IPH
13.00-13.15	Discussion	
11.30-13.15	PARALLEL SESSION 3 Topic: Programs - from screening to surveillance	Moderators: Prof. Asc.Alban Ylli Prof. Ulrich Laaser
11.30-11.45	Thinking forward: Effective management of equality, diversity and inclusion challenges for sustainable healthcare organizations.	Dr.Valia Kalaitzi, Greece
11.45-12.00	Trend of Hypertension and Diabetes in the Elderly in Kosovo Primary Health Care 2011-2018	Prof. Asc. Valbona Zhjeqi, Kosovo
12.00-12.15	National Diabetes Register: Trends in incidence and prevalence of diabetes in Albania, during the period 2014-2018	Dr.Dorina Toçi, IPH
12.15-12.30	Abortion indicators in Albania for the year 2018	MA. Alba Merdani, IPH
12.30-12.45	The Swiss Agency for Development and Cooperation (SDC) project "Shkollat për Shëndetin" implemented by Save the Children.	Prof. Genc Burazeri, "Schools for Health" project
12.45-13.00	Syndromic and Sentinel Surveillance in Primary Care and how COVID -19 pandemic affected it.	Dr. Artan Simaku, IPH
13.00-13.15	Discussion	

11.30-13.15	<p>PARALLEL SESSION 4 Topic: Public Health and Primary Health Care response and preparedness in emergency situations in context of COVID-19</p>	<p>Moderators: Prof. Asc. Silva Bino Dr. Dorina Toçaj</p>
11.30-11.45	COVID-19 and Public Health interventions	Prof. Asc. Silvia Bino, IPH
11.45-12.00	The GET Prepa Red Project – an Albanian-German partnership in the field of emergency preparedness	Dr. Nadine Zeittmann, Germany
12.00-12.15	Assessment and management of mental health problems in emergency situations and during COVID -19 pandemic in Albania	PhD. Jonida Haxhiu, IPH
12.15-12.30	The outbreak investigation and contact tracing during SARS -CoV-2 infections in different settings and implications for primary care	Dr.Elona Kureta, IPH
12.30-12.45	The importance to prioritize readiness to implement the Minimum Initial Service Package (MISP) of SRH at the onset of crises	Emmanuel Roussier, Humanitarian Response Specialist, UNFPA Regional Office for Eastern Europe and Central Asia UNFPA
12.45-13.00	COVID -19 vaccination and its challenges for primary health care	PhD. Erida Nelaj, IPH
13.00-13.15	Discussion	
13.15-13.30	Break	
<p>PLENARY SESSION</p>		
13.30-14.00	Feedback from parallel sessions	
14.00-14.45	Evidence-based policy making	Panel composed of representatives from the IPH, MoHSP, UN, TPH, and other international experts
14.45-15.15	General discussion and conclusions	Panel composed of representatives from the IPH, MoHSP, UN, TPH, and other international experts

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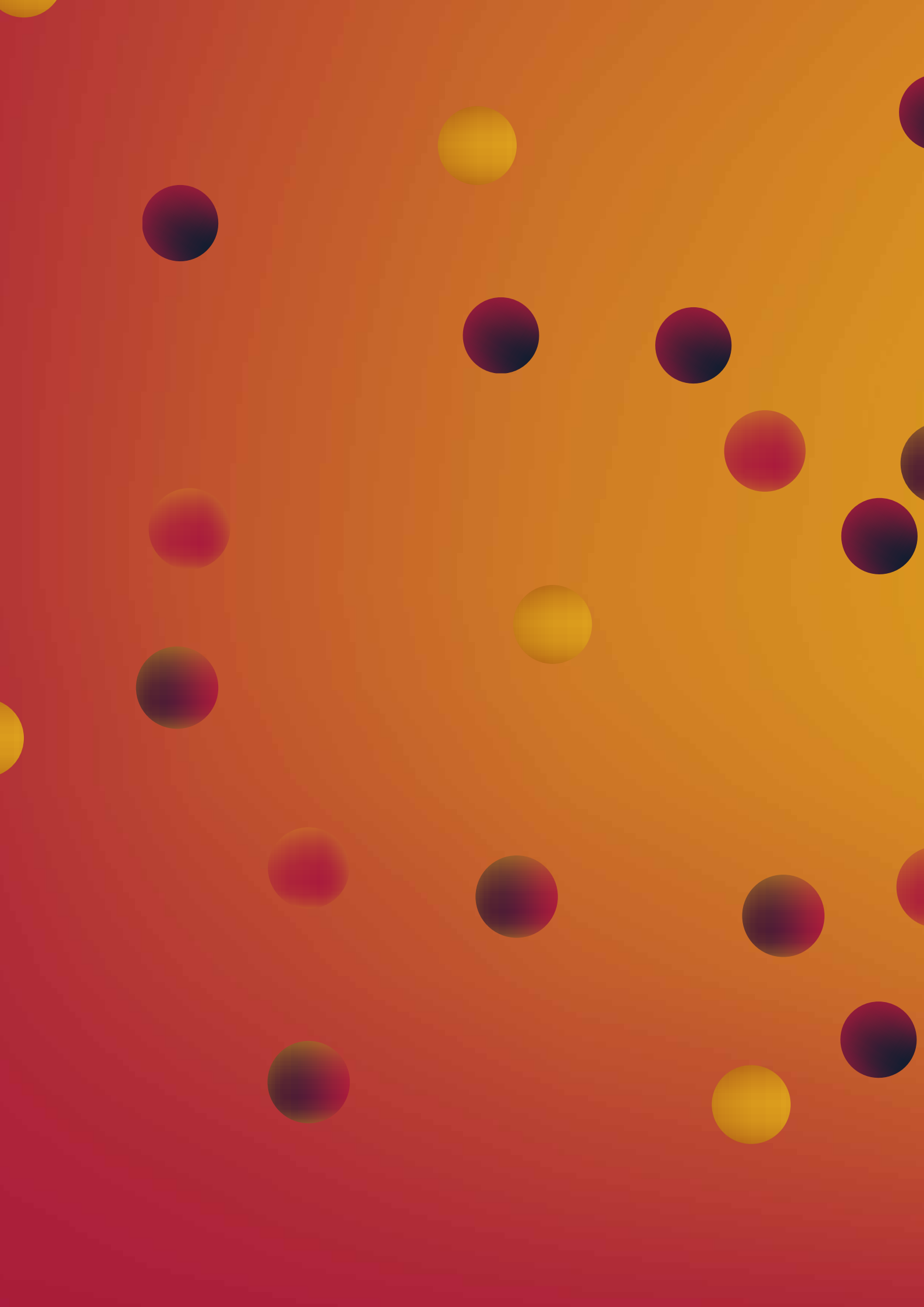
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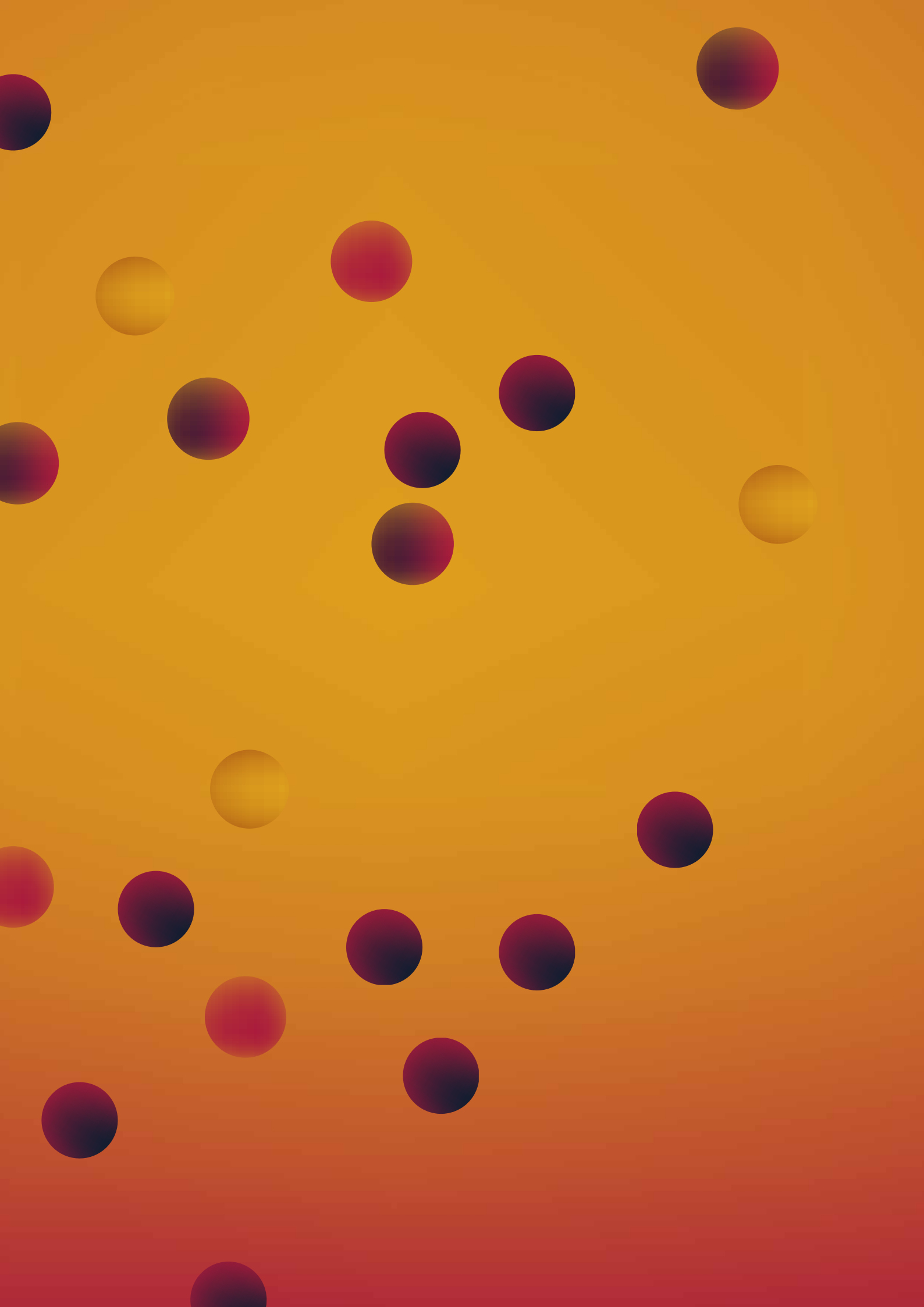
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The need for strengthening Primary Health Care System in Albania

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An integrated health care system is urgently needed in Albania in order to meet population needs and provide high-quality services making efficient use of the current available resources.

In particular, a strong Primary Health Care (PHC) system is required in order to address the current burden of disease (characterized by a significant shift towards non-communicable diseases) and the main issues related to the general health status of the Albanian population.

The movement of patients within the Albanian health system is formally regulated by the referral system. Yet, the implementation is not uniform through the country and many patients keep skipping the PHC system.

Usually patients are referred by the PHC to secondary or tertiary care with a second opinion request form for cases where a diagnosis is not reached or completed. Referrals are made even when the required treatment cannot be provided by PHC and include communication with the family physician after the treatment received in hospital.

Nevertheless, in the past few years, a considerable progress has been made with regard to extending a wide range of preventive services for targeted populations in Albania. The most remarkable example consists of the medical check-up program targeting all Albanian citizens aged 35-70 years.

Yet, several system barriers remain to transform PHC to a family medicine-based model of care, as pointed out by a recent WHO report (Kluge H et al., 2018). In particular, the role of PHC practitioners need to be revised and agreed with all key stakeholders involved. Furthermore, inter-sectorial collaboration should be fostered. In addition, clinical guidelines and protocols pertinent to PHC system need to be revised and updated. Also, directors of health centres and mid-level managers at district level need to be empowered in order to employ an evidence-informed decision-making approach.

Overall, the improvement of PHC system in Albania requires a significant strengthening of the integration level, accountability and rational use of services in order to improve the management, control and prevention of diseases in the general population.

KEYWORDS CHECK-UP PROGRAM DISEASE CONTROL PREVENTION PRIMARY HEALTH CARE (PHC)

Progress, achievements and challenges in the implementation of the Albanian National Health Strategy 2016-2020

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The process of implementation of the Albanian National Health Strategy (ANHS 2016-2020) is generally characterized by a good progress and has resulted in many achievements. Hence, several established health targets have been already met, or are quite likely to be achieved by the end of 2020.

In particular, the target set for life expectancy has been already achieved by the end of 2017 for both men and women in Albania. The target established for premature mortality from major non-communicable diseases can be also achieved along with the target on mortality rates from external causes of death and injuries, which all go in line with the progress of health care system and other major reforms undertaken in the past few years in Albania.

However, most of the targets set for lifestyle/behavioral characteristics can be hardly achieved in 2020 including tobacco smoking, alcohol consumption and, particularly, overweight and obesity which are on the rise among Albanian adults.

Furthermore, the indicator on out-of-pocket health expenditure is currently behind the envisaged target and unlikely to be achieved. Likewise, the target on public health expenditure can be hardly met by the end of 2020.

Nonetheless, Albania is well-positioned to achieve strong progress on most of the Sustainable Development Goals (SDGs) by building on the development gains the country has made through extensive reforms in many sectors.

KEYWORDS HEALTH INDICATORS HEALTH TARGETS NATIONAL HEALTH STRATEGY SUSTAINABLE

Challenges and achievements for primary health services in Albania. Towards more preventive care for all

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Background: Primary Health Care (PHC) is considered central in Albanian Health System efforts to control diseases and protect the health of all citizens. The first national strategy for PHC is in final stages and aims to lay the path for preparing the health system to better address the changing health needs of all communities and population categories. In this context we analyse challenges PHC faces and some of its recent achievements.

Methodology: For this work there are used two different methodologies; First, indicators about utilisation of services are systematically retrieved from Institute of Public Health, INSTAT and World Health Organization's (WHO) databases. They are combined with population data about risk factors and mortality data. The second source of data was the assessment of primary health care services in Albania carried out in 2018, which methodology was guided by the WHO European Framework for Action on Integrated Health Service Delivery and its monitoring tool.

Results: The number of visits in PHC services has been on increase, reaching recently 7,942,742. Still the indicator of average number of contacts

with PHC per inhabitant per year (2.7) remains relatively low compared to other European countries. Introduction of check-up program for people 35-70 years old seems to have improved the early detection of hypertension and diabetes; there are 12% more cases of hypertension and 30% more cases of diabetes identified in PHC in the second year of the program. Data show that although hospitalisation rate for hypertension in Albania remains comparatively high, it has been decreasing with 5% during 2015-2017. Nevertheless, the trend is on increase for diabetes. There is an improvement of hypertension control between 2014 and 2016 with 50% less cases of grade 2 and 3 among people over 65 years old. PHC utilisation rate for mental conditions is very low in Albania, while population prevalence rate indicate stigma and barriers in

Conclusions: There are some positive trends related to utilisation rate and early detection of diseases at PHC services in Albania. Still, they need to continuously cope with increasing needs of the population, while aiming at universal coverage with quality health services and lowering the burden of hospitals.

KEYWORDS CHALLENGES PRIMARY HEALTH CARE ALBANIA

Slovenian Public Health and Primary Health Care

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Aim: A brief presentation of the Public Health Services as a key priority in the Slovenian Health Care System. Public health services in Slovenia are considered part of the health care system and are specified by legislative acts. The 1992 Health Services Act defines “public health” as operations that include monitoring and evaluation of the health of the population and of health care; identification, monitoring and surveillance of key public health problems, risk factors and health threats; public health preparedness and response to health threats; health protection measures; disease prevention; health promotion; informing the public on the population’s health status and public health research findings; training of professionals working in public health; and public health research and education.

Conclusion: Public health services in Slovenia have over time developed into a strong and sustainable part of the health system, with clear roles for key stakeholders. Centralized and modernized in recent years, they have contributed to new health system developments and developed into a competent partner in intersectoral cooperation.

One of the key developments in recent years has been the introduction of new preventive and public health services, including health promotion centres, model practices and screening programmes in primary health care, focusing on noncommunicable diseases and risk factors. This has improved access for all population groups across the country to prevention and public health services.

KEYWORDS HEALTH SERVICES SLOVENIA HEALTH SYSTEM

Delivering Universal Access to Sexual and Reproductive Health during and after COVID-19 pandemic

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In November 2019 global community joined Nairobi Summit to review the results achieved since 1994 in delivering ICPD Programme of Action. The renewed commitments made by the governments, civil society, academia and development partners is a significant step to accelerate the progress in achieving the universal access to sexual and reproductive health in line with sustainable development goals.

The economic and social disruption caused by the COVID-19 pandemic is devastating, and health sector is under double pressure: to respond to pandemic and to ensure the continuity of health services. COVID-19 pandemic made significant impact on continuity of SRH services in all countries; the countries need to adopt new, evidence based, approaches to increase the efficiency of SRH services: to maintain and expand the coverage of the population groups, being affected by financial crisis and to expand the range of essential SRH services under UHC to reduce diseases burden.

Three strategic approaches can reduce state expenditures for SRH services:

- Expanding the range of essential SRH services, integrated at the primary health care level
- Focus on preventive services, acting early and applying life course approach;
- Applying digital solutions for providers' training, service provision and population awareness.

COVID-19 made significant impact on access to SRHR services and this impact was much higher at the secondary health care level due to the special measures and profiling of the hospitals. It is evident that the primary health care level, even being under extreme pressure, remains the cornerstone of pandemic response, being highly adaptable in meeting pandemic challenges, including the delivery of wider range of SRH services to meet the needs of population. In addition, lower cost, better access and higher effectiveness of integrated SRH services are the advantages of the primary health care facilities.

Life course approach to SRH service planning is critical public health pillar: early action for diseases' prevention is critical for decreasing the health expenditures and achieving better health outcomes;

Integration of the essential SRH services under UHC and the provision of the preventive services at the primary health care level are the most efficient solutions, to maintain and increase the access to the essential SRH services, to decrease diseases burden and most importantly, to decrease expenditures for treatment of SRH diseases and conditions in short and mid-term perspective (e.g. reproductive tract cancers, STI/HIV, infertility, complications of pregnancy and delivery, unsafe abortions etc). In a longer term perspective, the social and economic benefits, resulting from improved SRHR will continue to pay dividends over time and generations.

KEYWORDS CHALLENGES PRIMARY HEALTH CARE ALBANIA

Public health and individual-based approaches to hypertension control at the crossroads of primary health care

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High blood pressure (BP) is the leading cause of mortality (and DALYs) in most countries and accounts for 33% of all deaths in Albania (GBD). BP, as other cardiovascular risk factors, has a graded relation with cardiovascular disease (CVD), implying that a large proportion of all CVD events arise from individuals with only moderately elevated BP (“prevention paradox”). This underlies 2 main strategies to reduce the BP-related burden in the population. The “population strategy” aims to reduce BP in the whole population, largely through interventions in different sectors, e.g. reduction of salt in foods through regulations, high tax on alcohol, etc., as emphasized in the WHO Global Action Plan for the Prevention and Control of

NCDs. The “high-risk strategy” aims at identifying (diagnosing) and managing (providing BP medications) among individuals at risk (e.g. those with high BP and/or at high CVD risk). Because the prevalence of HBP is very high (e.g. >20-30% of middle-aged adults) and treatment is highly cost-effective, safe and simple, HBP diagnosis and management should be handled largely at the primary health care level. Several critical issues need to be considered when managing HBP in individuals at risk, which will be briefly mentioned. Although several interventions to reduce BP in the population need to be developed in sectors outside of the health sector, health professionals have an important role in spearheading such interventions.

KEYWORDS **BURDEN OF DISEASE** **CARDIOVASCULAR DISEASES** **HIGH BLOOD PRESSURE** **NON-COMMUNICABLE DISEASES**

PARALLEL SESSIONS

SESSION 7

Successful PHC strategies: effective integration of PH functions into PHC

MODERATORS: TANJA MATE | GAZMEND BEJTJA

Integration of Tuberculosis services with Primary Health Care Operational Plan

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Objective: The purpose of the Operational Plan is to describe how to proceed with starting a pilot project on introduction of outpatient care and people centered care for patients with tuberculosis at the level of primary health care in Albania.

Methods: The selected pilot sites are 2 healthcare facilities in Kamza district of Tirana, and 2 healthcare facilities in the city of Lushnja. These facilities will start pilot activities, then all related data and information will be collected, analyzed and appropriate solution proposed. Also collected pilot results will be used for developing effective financing mechanism for support of drug management and patient care, support Primary Health Care facilities providing TB care and staff motivation system for staff that achieves successful treatment outcomes. The work should continue to scale up of outpatient care in Albania in accordance with pilot experience and solutions stated in the PHC guidelines.

Results: Detect more TB at PHC. Introduce a model of fully outpatient treatment by starting treatment of TB patients in outpatient settings. Patient centered ambulatory care to prevent and control MDR-TB in Albania.

Data collection and comprehensive evaluation of the effectiveness of outpatient treatment, followed by developing a package of recommendation for making, supplementing and amending existing regulations to expand the use of outpatient treatment across the country; Establish what additional resources needed for successful rollout of the pilot.

Conclusions: It is foreseen that pilot experience of fully outpatient care in PHC settings would show that TB outpatient treatment has advantages: Has positive influence on patients' adherence to treatment; Produce improvement of TB IC measures; and has increased commitment of PHC personnel, creation of more trusting relationship with patients.

KEYWORDS ALBANIA PRIMARY HEALTH CARE TB

Vaccination and its challenges on primary health care

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Aim: National Immunization Program (NIP) based at Institute of Public Health (IPH) is responsible from planning, monitoring and management of the immunization program at all levels through strong collaboration with Epidemiology units in every Local Health Care Unit (LHCU) which monitor, supervise and assess the immunization services delivered by the primary health care facilities and maternity hospitals. NIP is also responsible for distribution of vaccines and safe injection equipment, vaccine preventable disease surveillance, outbreak response, and organization of supplementary immunization activities. The aim of this evaluation is to identify challenges and indicate possible solution on improving vaccination coverage at every primary care vaccination point.

Methods: Vaccination coverage is reported quarterly and it is updated twice per year. Reporting forms have been improved by changing its format, including also every vaccination point. Vaccination coverage is given for each vaccination antigen and it should be more than 95% not only at national level but at each vaccination level.

Results: A deep analysis of each level indicate also the challenges of reaching every child in every community. Vaccination coverage is more than 95% for most of the antigens in the vaccination schedule but when it comes to Measles-Mumps-Rubella vaccination it is lower in different levels and especially in urban areas or small LHCU going even 60%. We have identified a lot of challenges for health care workers at primary level such as difficulties to convince parent to bring children on time for vaccination, difficulties to explain and to address parent's concerns, staff turnover, reduction of patronage nurses number, etc.

Conclusion: Vaccination at primary health care level should have dedicated staff and more training is needed especially on how to communicate with parents and how to improve the vaccination coverage by reaching every child in every community.

KEYWORDS IMMUNIZATION PROGRAM VACCINATION COVERAGE VACCINATION ANTIGENS

The continuity of mental health care and the role of primary health care system (collaborative discharge model)

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Introduction: Discharge planning is a process that leads to the development of an individualized care plan that meets objectively assessed patient needs after leaving the hospital, for better integration in the primary mental health care regarding to recovery enhancement and social inclusion.

Aim: To present Collaborative Discharge Model in the mental health care system in Bosnia and Herzegovina as an approach to the continuity of care for persons with mental disorders.

Methods: This paper analyzes the results of a Pilot implementation of a discharge planning model from 1 May to 31 July 2019 in seven psychiatric hospitals in the BiH. For this research, a pre- and post-test questionnaire was constructed to monitor the effectiveness of model implementation. The questionnaire included information on voluntary and involuntary admissions, rehospitalizations, compounded dismissals, referrals to a social institution, continued treatment at a mental health center, involvement of a multidisciplinary team, and establishment of a discharge planning coordinator, number of suicides and offenses committed after discharge.

Results: In seven hospitals compared to data from pretest questionnaires, during the pilot

implementation of the discharge planning model there were approximately the same percentage of re-hospitalizations (2.7% vs 2.6%), slightly fewer referrals to social institutions (1.5% vs 1.3%), less discharge on personal request (3.9% vs 1.03%), less involuntary hospitalizations (3.9% vs 2.6%). At posttest monitoring, there were (16 or 1.6%) patients with complex discharge. In the pretest period, no institution had data on post-hospital monitoring, one hospital did not have basic data, and 3 hospitals did not have data on re-hospitalizations or referrals to a social institution, and two hospitals did not have the discharge coordinator. At posttest monitoring, all hospitals had baseline information, discharge planning coordinator, post-hospital first contact information for patients in outpatient settings. Suicide and post-release suicide reports were not available at any pretest and posttest institution.

Conclusions: The results of the Pilot implementation of the discharge planning model indicate that discharge planning improves monitoring of the continuity of care for the patient in primary (mental) health care system. Mental health discharge mechanisms based on contacting and arranging the appointment, after discharge from the hospital, in the primary care system directly contribute to better stabilization and social integration of patients.

KEYWORDS CONTINUITY OF CARE DISCHARGE PLANNING DISCHARGE PLANNING COORDINATOR
PRIMARY MENTAL HEALTH CARE

The advantages and drawbacks of treatable mortality as an indicator of health system performance in Europe

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Aim: Treatable (amenable) mortality is a headline indicator of Member State health system performance in European Union (EU) health reporting and governance processes. It directly influences European Semester country-specific recommendations, which may include binding commitments of future health system reform. However, treatable mortality was not initially developed for the purpose of cross-national comparisons. We reviewed the available evidence on the robustness of treatable mortality in cross-national comparisons.

Methods: A rapid literature review was performed. The search included scientific databases and websites of international and national institutions that perform health system performance assessments.

Results: The search uncovered 43 relevant publications. The literature highlights that geographic variation in treatable mortality is

associated with the quality of health care provided. However, the variation is also associated with cross-national differences related to socioeconomic development, such as health information quality, population composition, prevalence of risk factors and diseases, availability of medical technology (including medicines), and access to health care. As of February 2020, a comprehensive empirical evaluation of the relative impact of these factors had not been reported.

Conclusion: The use of treatable mortality for cross-national comparisons may lead to biased results, particularly if the comparison includes countries with different levels of socioeconomic development. In the context of the EU, this has become particularly important considering the recent accessions of central and eastern European countries. Methods of adjusting treatable mortality need to be developed if the indicator is to be used for comparative health system performance assessment in the enlarged EU.

KEYWORDS AMENABLE MORTALITY CROSS-NATIONAL COMPARISON EUROPEAN UNION HEALTH INDICATORS
TREATABLE MORTALITY

Influenza Immunization in primary care

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Aim: Influenza immunization program for health care workers was established in 2014, which includes vaccine procurement from the government, monitoring and vaccine coverage for this target group. All health care workers, as other target groups are recommended to get the influenza vaccine, each year. This vaccine is offered for free in the primary care level, for all the recommended risk groups. Presentation of influenza vaccination coverage of health care workers at the primary care level provides an insight on acceptance and vaccine use.

Methods: Data analysis for the influenza immunization season 2019-2020 are presented for the health care workers at the primary care level.

Results: For the season 2019-2020, national influenza vaccination coverage for health care workers at primary care level, is 80 %. This includes

vaccination of medical (nurses and physicians) and non-medical health care workers. Nurses at primary care level get vaccinated more than physicians. Influenza vaccination coverage for nurses is 85 %, for physicians is 72 %, and for non-medical health workers is 66 %.

Conclusion: This coverage shows a well acceptance of influenza vaccine, among this important risk group. Health care workers are the link and provide care for the other recommended risk groups. By vaccinating themselves they provide indirect protection for the patients and other close relatives. Nevertheless, the data also reveals that there are still some gaps, which may lead to influenza vaccine susceptibility. Therefore, updating information with evidence based facts and conducting continues training on the importance of influenza prevention through vaccination is crucial in debunking myths and misconceptions.

KEYWORDS HEALTH CARE WORKERS INFLUENZA VACCINE INFLUENZA IMMUNIZATION PRIMARY CARE

Primary Health Care in Montenegro

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¹Primary health care in Montenegro.

The organization of the provision of health services in Montenegro is similar to that in most European countries. Health services are provided at the primary, secondary and tertiary level.

The health system is based on the principle of compulsory health care, all Montenegrin citizens are covered by health insurance (about 620 000 insured and about 14 000 refugees, asylum seekers and other categories). Organizing the home of health by the unit for administrative and technical issues, selected doctors: adult doctors, pediatricians and gynecologists; support centers: centers for pulmonary disease, centers for diagnostics, centers for mental health, centers for children with special needs, prevention centers, day care centers and educational centers.

The team of selected physicians consists of a nurse, a biochemist, a laboratory, and a non-medical worker. As for the primary level of health care, secondary and general hospitals are the secondary level, while the tertiary level includes the clinical center of Montenegro.

Montenegro has implemented an integrated primary health care information system at a state-of-the-art technology level, with a fully open platform to connect with higher levels of health care, insurance organizations and the pharmaceutical sector.

These systems are fully integrated with each other, which provides electronic billing, interconnection and high quality database.

KEYWORDS ELECTRONIC BILLING INTEGRATED SYSTEM PRIMARY SECONDARY AND TERTIARY LEVEL

Evidence based interventions for reduction of salt consumption: Role of primary health care

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Aim: The aim of this study was to review the interventions that are effective for the reduction of salt consumption in community and the role that primary health care could play.

Methods: This ongoing study identified all the most relevant systematic reviews and other key documents found in major online databases. The appropriate systematic reviews were those addressing any of the following three policy options with regard to salt reduction: 1. Improve the awareness attitudes and behaviors of general public, health professionals, and decision makers on salt consumption; 2. Development of effective approaches/models of engagement with food industry, marketing, community representatives and other key stakeholders; and 3. Effective enforcement of the regulations and normative acts on the salt content of food products. The

identified systematic reviews were rated according to AMSTAR system and/or Health Evidence rating system.

Results: The results are expected to identify the most appropriate policy options that would work effectively in the Albanian context for the reduction of salt consumption in community. The potential role of primary health care in this process is hoped to be highlighted as well. The advantages and disadvantages of each policy option within the local context will be assessed and discussed.

Conclusion: The revision of relevant systematic reviews could provide policy-makers and decision-makers with the appropriate evidence-based interventions for the reduction of salt consumption at population level in Albania and the ways for engaging primary health care in this process.

KEYWORDS COMMUNITY PRIMARY HEALTH CARE SALT REDUCTION SYSTEMATIC REVIEW

SEEHN (Western Balkans and beyond): Potential to advocate for better integration of primary health care and public health in face of COVID-19 pandemic

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The South-Eastern Europe Health Network (SEEHN) is a regional intergovernmental organization founded in 2001 with the aim to promote collaboration, common values and to encourage mutual efforts towards peace, health and well-being of the people in the member states. SEEHN is providing platform for discussion and exchange of best practices between nine member states in priority areas of its focus.

SEEHN mission is to improve health of member states' populations through better and more intense cooperation, collaboration, integration, capacity building and coordination in public health at regional level, by following a comprehensive approach that integrates health in all policies.

Why do we need this kind of cooperation?

- It is the only SEE regional organization exclusively focused on health
- It addresses common health issues in SEEHN

member states (Western Balkans and beyond)

- It serves as an additional channel for cooperation
- It advocates with a single voice for public health
- It is a meaningful voice for global health.

Public health (PH) and primary health care (PHC) are natural partners for addressing the challenges of populations' health and are among the SEEHN highest priorities.

With the ever changing landscape of healthcare, especially now during the COVID -19 reality, the need to work together and address PH and PHC integration to improve wellness and health outcomes has never been greater.

PH and PHC integration is necessary to change the health services to deliver a truly comprehensive service that can help achieve universal health coverage. This will in turn fulfil the dream of the Declaration of Alma-Ata stated 40 years ago: "Health for All".

KEYWORDS HEALTH FOR ALL PRIMARY HEALTH CARE REGIONAL ORGANIZATION SEEHN

Primary Health Care services with special focus in Home Visits Services to Improve Mother and Child Wellbeing in Six Municipalities during 2015/2019

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Aim: Presentation of services in Primary Health Care with a focus on the home visiting program for mothers and children. Needs and requirements of individuals and the community with the aim of promoting, maintaining and improving health for all citizens of the Republic of Kosovo. Evidence suggest that inequalities in health services should be addressed and enable quality of services to everyone.

Methodology: Assessment of level of integration and application of home visits for mother and children health within primary health care structure, based on home visiting performance indicator for 2015/2019, observations from monitoring visits, interviews with family medicine management as well as interviews with health workers were selected to be further analysed in selective 22 municipalities.

Results: Implementation of home visits resulted with better performance for certain Municipalities

compare to others. There are identified number of factors that indicate the reason for such a performance. Decentralization of services and performance of managerial capacity is one of the factors that affect the efficiency of services and implementation of policies. Out of total 30 000 home visits conducted during 2015-2019, 13 % of them are to infants within the first 3 days of life, considered as critical period for the identification and prevention of diseases. Compare to 2015/2016, quantity and quality of home visits has been increased during 2018/2019.

Conclusions: Provision of services through home visits ensures continuation of care, health promotion and inclusion in the family and community, involves other sector which reduces the inequality of access to health services for maternal and child health.

KEYWORDS CHILDREN HOME VISIT MOTHER KOSOVA

Overview on use of health services from pregnant women.

Results from ADHS 2008-2009 and 2018

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Aim: Health care services during pregnancy, childbirth and after delivery are important for the survival and wellbeing of both the mother and the infant. According to guidelines, a pregnant woman should have at least four antenatal visits to reduce the risk of stillbirths and pregnancy complications, and the first visit should occur in the first 8 to 12 weeks of gestation. The aim is to present some data from Albanian demographic and health surveys (ADHS 2008-09 and 2017-18) to compare and overview the access of prenatal care in Albania.

Methodology: Albania Demographic Health Study in Albania (ADHS) is a nationally representative sample survey designed to provide information on population and health issues in Albania. During September 2017- February 18, a second round of ADHS was conducted, and women age 15-49 who had a live birth in the 5 years preceding the survey, were asked for the number of antenatal care (ANC) visits and the time of the first visit.

Results: A large majority of Albanian mothers comply with these guidelines: 78% of them had four or more antenatal visits, and 82% of them had the first visit in the first trimester of pregnancy. Both indicators are higher in urban areas. The proportion who had at least four antenatal visits is 82% in urban areas compared with 73% in rural areas. Similarly, the proportion who had the first visit in the first trimester of gestation is 84% in urban areas but 78% in rural areas. The proportion of women who had at least four ANC visits increased from 67% in 2008-09 to 78% in 2017-18. Over the same time period, the proportion of women who received ANC in the first trimester of pregnancy increased from 78% to 82%.

Conclusions: Despite the optimistic results from our findings, interventions to strengthen protocol implementation, improve the quality of prenatal services, and enhance educational activities promoting healthy pregnancy and the role of regular controls, should continue.

KEYWORDS ACCESS ADHS ANTENATAL CARE PREGNANT WOMEN

Knowledge about tuberculosis among primary health care professionals in Albania

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Background: Health professionals working in primary health care services in Albania have a major responsibility for timely identification and referral of suspected cases with Tuberculosis. This study explored the level of health professionals perception, challenges and needs pertaining to the identification of patients with tuberculosis.

Methods: A quantitative survey conducted in 2019 included 41 health centers from Tirana (28) and Kukësi (13). A self-administrated questionnaire for assessing the level of knowledge about TB was used among 309 health professionals (doctors and nurses) in primary health care services.

Results: Only 54.4% of the staff working at Health Care centers in urban areas answered correctly to the questions related to clinical symptoms of TB compared to 40% of the staff working at health care centers in rural areas. However, more than half (48%) of the staff working at

HC in urban areas had knowledge on the time period for the treatment of TB according to treatment protocols compared to 33.4% of the staff working in rural areas. The urban Health Care centers have a good working cooperation with regional dispensaries compared to those in rural areas (56.4% vs. 26.2% respectively). The scale of communication of health professionals with the community in regard to education on TB remains low for both urban and rural areas (34.2% and 25.5% respectively).

Conclusion: There is an urgent need for strengthening capacities of health professionals working in primary health care services regarding to TB. These results should be used to orient the Control Tuberculosis Program. Information obtained from this study will also be disseminated to relevant authorities for the efficient formulation of policies and implementation of intervention strategies for the control of TB in Albania.

KEYWORDS HEALTH PROFESSIONALS PRIMARY HEALTH CARE TUBERCULOSIS

Implementing e-Health in primary health care

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Aim: Albania has made significant progress in the use of information and communications technology in the health sector. The introduction of the National Electronic Health Records system, several eHealth pilot programs, as well as online services for the primary care users are major steps in this regard.

Methods: A literature review of papers and materials concerning eHealth and primary health care was performed. Papers focusing on implementing eHealth in primary health care in low- and middle-income countries were selected.

Results: Many studies provide evidence that eHealth has the potential to improve primary care practice and quality of care. Patient reminder systems and patient tracking systems have proved

to be effective in the management of chronic diseases and conditions such as diabetes mellitus, hypertension, and asthma, which are on the rise worldwide. Also, eHealth supports the transition towards a personalized and citizen-centered medicine, as well as shared decision-making in primary care. In addition, evidence from various studies suggests that eHealth can also be utilized to enhance access to healthcare and health equity.

Conclusion: The potential of eHealth to affect primary care in low resource settings is high, but there is little evidence on its cost-effectiveness. eHealth initiatives require strategic and integrated action at the national level in order to improve primary health care services. Developing a National eHealth policy or strategy should be considered essential in the coming years.

KEYWORDS DISEASE MANAGEMENT EHEALTH PRIMARY HEALTH CARE

Disease Prevention and Health Promotion: The Past and the Future

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Aim: Disease prevention and health promotion are closely related through the lifestyle concept and should be part of the postgraduate curriculum of every School of Public Health (SPH) in the European Region and beyond, especially with regard to the modifiable behaviors of physical activity and healthy nutrition.

Methods: The Association of Schools of Public Health in the European Region (ASPHER) executed two surveys on the activities of its members between 2011 and 2015/2016. A group of 48 SPH responded in both surveys. Performance of graduates was measured by a Likert scale of 1-5, applied to the 10 Essential Public Health Operations (EPHOs). Furthermore we determined the delay in full implementation for the target year 2030. The target to offer both modules in 2030 has been set at 100.

Results: For disease prevention as for health promotion, the 2nd Survey in 2015/2016 shows slightly less positive results (72.9% vs. 77.1% and 81.3% vs. 87.5%) as compared to the 1st Survey in 2011. The only exception is the use of social media which increased for disease prevention from 20.8% to 37.5% of all SPH and for health promotion from 22.9% to 39.6%. Referring to the set target of 100%, delays between 4 and 13.5 years accumulate for the target year 2030.

Conclusions: With the exception of use of social media progress towards 2030 is slow or even negative. Serious efforts have to be made by ASPHER to revert this process.

KEYWORDS ASPHER ESSENTIAL PUBLIC HEALTH OPERATIONS (EPHOS) DISEASE PREVENTION HEALTH PROMOTION

Adolescent legal psychoactive substance use – opportunities for screening in primary health care

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Aim: The aim of this study was to assess the prevalence of alcohol and tobacco use among school adolescents in Albania in order to assess the potential for screening in primary health care settings.

Methods: This study used information retrieved from the first and second wave of the European School Survey Project on Alcohol and other Drugs (ESPAD), carried out in 2011 and 2015, respectively, in Albania. In each wave, the information was collected in a representative sample of 9th and 10th classes selected randomly through a stratified sampling strategy. Lifetime prevalence of cigarette smoking use was retrieved from the question: "On how many occasions (if any) during your lifetime have you smoked cigarettes?" and lifetime prevalence of alcohol use was based on the question: "On how many occasions (if any) have you had any alcoholic beverage to drink?", with any answer other than zero identifying lifetime users.

Results: About two-thirds (65.7%) of Albanian 9th and 10th graders had ever consumed any alcoholic beverages in 2015, marking a decrease compared to 72.4% in 2011. Prevalence of lifetime alcohol use was higher among boys, cultural classes (high school), private schools, urban areas and in Tirana compared to other districts. Prevalence of lifetime cigarette use was 34.9% in 2015, compared to 39.7% in 2011, and higher among boys, professional classes (high school), private schools and urban areas.

Conclusion: Alcohol and cigarette use is rather common among Albanian adolescents. Because national surveys are carried rather infrequently (every 4 years) then the potential to screen for adolescent alcohol and tobacco use in primary health care settings should be considered.

KEYWORDS ADOLESCENTS ALCOHOL ESPAD TOBACCO PREVALENCE

Nursing education programs in response to national health agenda and competency-based curricula

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Introduction: WHO recommends transforming and scaling up health professionals' education by revising and updating curricula on regular basis, linking disease burden to the training needs, adopting competency-based curricula, and equipping educators with competencies required to produce the required graduates.

In the context of Albania, nursing education programs should respond to the country's national health agenda, the burden of disease and the entire Albanian society.

Objective: The conduction of an analysis the most important factors leading to development of a professional master's degree programme in Family Nursing in Albania (MDPFNA) and to its successful implementation.

Methods: This evaluation was based on multidimensional analysis of the most important factors leading to development of a MDPFNA. Different data (based on a desk review and face to face interviews with key informants) were gathered about the environment in which the curriculum

will be implemented and in which graduates will practice nursing; specific contextual factors that exist both within and outside the educational institution and have the potential to influence the school and its curriculum.

Results: Regarding the education and training, the current Albanian policy on human resources in the health field lacks effective coordination. As no professional MDPFNA has been developed and implemented to date, there is a clearly articulated need for the establishment of such a program in Albania by the Faculty of Technical Medical Science.

Conclusion: Education system in nursing should be reformed. It is very important the harmonization of the teaching programmes among all nursing faculties in basic education; aligning the nursing curricula to the international/European standards with the focus on practical competencies, abilities and skill-mix approach, development of the list of disciplines and specialties; and establishment of a national plan for the continuing professional development of nurses operating at all levels of health care services in Albania.

KEYWORDS COMPETENCY-BASED CURRICULA EDUCATION SYSTEM HEALTH AGENDA NURSE PROFESSIONAL MASTER

Introducing emergency contraceptive pills to the national family planning program

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Emergency contraceptive is referred to the contraception methods during the unprotected sex. According to WHO, the emergency contraceptive protects 95% against the pregnancy and is effective if is administered within the first five days or earlier, after an unprotected sexual intercourse. It does not harm the pregnancy and does not cause abortion. The emergency contraceptive is appropriate for every woman who needs it or is in the conditions of an emergency situation, including cases of sexual abuses or rapes. It should strictly not be used if the first menstruation has not happened yet. There are two emergency contraceptive methods used, pills with Levonorgestrel and Diapositive intrauterine. There is a family planning national program by the Albanian government since 1997, where a broad range of emergency contraceptives are

involved. Since 2015, this program is part of the basic package of the primary healthcare in all the country. Actually, nowadays the primary healthcare is provided in 424 family planning centers with a trained personnel. Ministry of Health and Social Protection has proposed to the national strategy (2017-2021) of the contraceptive supply, that the emergency contraceptive will be part of the methods that are offered free of charge for the people in Albania. The emergency contraceptive has been procured in 2018, and was available in every healthcare center in 2019 with the name REVOKE levonorgestrel 1.5 mg. It is recommended that the emergency contraceptive should be included in a routinely manner in all the national programs of the family planning, and furthermore integrated in the primary healthcare services.

KEYWORDS **EMERGENCY CONTRACEPTIVE** **PRIMARY HEALTHCARE** **REVOKE** **UNPROTECTED SEX**

Integration of HIV counseling into primary health care

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Aim: Depression is one of the most frequent mental health problems reported in persons living with HIV. HIV illness and depressive symptoms have very similar characteristics these make that depressive symptoms in people living with HIV perhaps are more or less reported as a result of somatic features of HIV. There are no data regarding the prevalence of depression in people living with HIV in Albania. This study was undertaken to provide comprehensive understanding about depression in people living with HIV in Albania and factors that influence depression.

Methods: A descriptive cross-sectional study was conducted in outpatient clinic of people living with HIV in Albania. Two hundred sixty-four patients were interviewed about depression, adherence, sexual activity and sexual desire. Patient Health Questionnaire is used as depression assessment tool, Case Index of Adherence is used to measure adherence, Sexual Desire Inventory to measure

the sexual desire and AMIS questionnaire (Emory University Instrument) to measure sexual behaviors. The data collected was analyzed using SPSS software and Medcalc software.

Results: The prevalence of depression measured with the Patient Health Questionnaire-9. The prevalence of depression in the sample is 64.4% (95%CI 58.3 – 70.2). It was found differences between women and men in the prevalence rate of depression, the women has high prevalence rate compare to male (70% and 62.1%). In the group with “low adherence” in therapy is reported higher percentages of “moderate depression” 52.5% and “severe depression” 45.8% compare to group with “good adherence in therapy” respectively 23% and 8.3%.

Conclusion: In light of the high prevalence of depression in people living with HIV is important offering counseling for mental health issues of PLWH in primary health care.

KEYWORDS ACQUIRED IMMUNE DEFICIENCY SYNDROME ADHERENCE DEPRESSION

Universal Health Coverage and Sexual and Reproductive Health and Rights

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Background: State provides the majority of health services in promotion, prevention, diagnosis, and treatment. Access to quality services includes HIV treatment, abortion, gender-based violence and comprehensive sexual education. Violence based prevention services/care centers for abused women. UHC is integrated in the Albanian National Health Strategy 2016–2021, as a means of achieving Sustainable Development Goals. 2.6% of the GDP is partially financed by compulsory health insurance.

Introduction: ACPD clinical centers in Vlora (1998), Tirana Center “Po (2000)” and Trokitja Center in Shkodra (2001) have contributed to: Advocacy for laws and approval of the national strategies on Gender Equality, HIV/AIDS prevention and treatment and sexual and reproductive health. The Ministry of Health’s Emergency Platform includes a reproductive health strategy on the Minimum Initial Service Package and compiled and updated guidelines and protocols for safe abortion, family

planning, youth friendly services, cervical cancer and antiretroviral medicines.

Results: Approximately 88 000 reproductive health care services were provided throughout 2016 to 2018. 422 services related to sexual and gender-based violence were provided during 2018, service providers raised capacity to provide quality care during the 2014-2018 periods. Comprehensive sexual education program for group ages 10-19: 400% increases in young people, women, and girls reporting rights violations due to awareness on their rights.

Conclusion: Promotion of political dialogue and public support in improving the health care quality and standards. Increasing access to health services for vulnerable populations. Changing health services financing method from contribution system to general taxation system. Inclusion of a specific budget on sexual and reproductive health.

KEYWORDS REPRODUCTIVE HEALTH SEXUAL HEALTH YOUTH SERVICES

Patients' satisfaction with the model of family practice at the Primary Healthcare Family Center in Vushtrria, Kosova

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Introduction: The integration of public health services within primary health care is a challenge for many countries.

The aim: The aim of the study was to analyze the satisfaction of the patients at the Healthcare Family Center in Vushtrria, with the family practice model.

Methodology: The study is descriptive, cross-sectional. The study has included 120 patients.

The results: 66 (55%) of surveyed respondents have received ongoing advice from the doctors on preventing the more frequent illnesses with statistically significant difference ($p=0.000$), but the difference by gender wasn't significant ($p=0.36$). The frequent controlling visits appear satisfactorily for 78(65%) of the patients, with significant difference ($p=0.001$) but according to the gender without significant difference. ($p=0.6430$).

When the doctor referred patients elsewhere, 102(85%) of the respondents said that they got a reasonable explanation, with a statistically significant difference ($p=0.000$).

Conclusion: With statistically significant difference but not according to gender: patients at the Healthcare Family Center in Vushtrria are satisfied with the educational advices about health, by the doctor and the nurse, with the frequency of the controlling visits and also with explanations for the referral to higher healthcare level institutions.

Recommendation: The Healthcare Family Center should empower human resources on health education and increase co-operation with the Public Health Institute during the drafting of the operational plans for the Primary Health Care.

KEYWORDS HUMAN RESOURCES THE HEALTHCARE FAMILY CENTER PRIMARY HEALTH CARE

Population estimation, allocation of human and financial resources to health systems

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The Albanian population has been experiencing an increased dynamism which has affected the age structures where the mass dismissal of the most active working age is evident. Except for absolute population numbers that suffered a decrease from year to year, the age structure of the country also changed. The situation becomes even more complicated when we have some official population number from several different governmental institutions. Why we as health professionals are concerned about these facts? The answer is simple: every planning, policy and investment should absolutely reflect the changes of the population for better efficiency.

Aim: The need to identify the population in order to plan human and financial resources more accurately.

Methods: This is a descriptive study of some official data about the population of the district of Tirana, obtained from the municipality of Tirana, its official website and from the Compulsory Health Insurance Fund.

Results: According to our study, in almost any case we do not have a compatibility of the number of residents reported by local units or mini municipalities of Tirana with the numbers of residents reported by the health system and respectively by Tirana Operator and the Compulsory Health Insurance Fund. Also in Tirana we do not have a matching of health centers with municipal units or small municipalities, which greatly influences the number of population.

Conclusions: Having a unified population number is the first thing required and all planning, findings and adjustments are raised above that number.

KEYWORDS HEALTH NUMBER POPULATION TIRANA

The profile of antimicrobial resistance of isolated strains in patients in Lezha hospital

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Aim: Antimicrobial resistance is one of the most worrisome issues of the century associated with a high cost of healthcare. Infections with antibiotic-resistant bacteria are becoming a real threat.

Therefore, monitoring of the antimicrobial resistance profile is necessary to control the spread of resistant bacteria. The aim of this study is to determine the antimicrobial resistance profile of infectious agents in patients hospitalized at Lezha Regional Hospital.

Methods: This is a prospective study, conducted during April 2019 - January 2020. Clinical samples were collected from patients hospitalized at Lezha Hospital. Identification of the isolates was performed: with EnteroPluri Test for enterobacteriaceas, OXI / FERMTMPluri Test - non-fermentable bacteria, StreptoSystem 12R - streptococci and StaphSystem 18R - staphylococci. The antibiogram was performed according to the EUCAST disc diffusion method and the interpretation was performed on the basis of EUCAST Breakpoint Tables v. 9.0.

Results: 398 specimens were collected, 195 feces for stool cultures (48.9%), 109 urine (27.3%), 25 pus (6.2%), 20 vaginal swabs (5.0%), 18 blood for hemoculture (4.5%), 15 throat swabs (3.7%).

sputum (40.0%). Out of these, 337 (84.7%) cultures were negative and 61 (15.3%) positive.

Overall, *Escherichia coli*, was the predominant strain, 25 (40.9%), followed by *Staphylococcus aureus* 22 (36.1%), *Klebsiella pneumoniae* 3 (4.9%), *Streptococcus pyogenes* 3 (4.9%), *Pseudomonas aeruginosa* 2 (3.3%), *Citrobacter freundii* 2 (3.3%), *Plesiomonas* spp 2 (3.3%), *Enterobacter cloacae* 1 (1.6%), *Enterococcus* spp 1 (1.6%). A total of gram-negative strains (*Enterobacteriaceae* and *Non-Fermenters*) 35 (53.4%) and 26 (42.6%) gram-positive strains were isolated. The resistance of gram-negative strains was 57.1% to ceftriaxone and ampicillin, 34.3% to ciprofloxacin and nitrofurantoin, 31.4% to gentamicin and 28.6% to sulfamethoxazole-trimethoprim. The resistance of gram-positive strains was 42.3% to erythromycin, clindamycin and ceftriaxone, 26.9% to ampicillin and nitrofurantoin 23.1% to sulfamethoxazole-trimethoprim, 19.2% to ciprofloxacin and 11.5% to gentamicin.

Conclusions: The profile of antimicrobial resistance is quite high. This requires coordinated efforts to prevent the spread of infections by these strains as well as antimicrobial resistance through the use of antibiotic criteria.

KEYWORDS LEZHA REGIONAL HOSPITAL MICROBIAL RESISTANCE PROFILE MICROBIAL RESISTANCE STRAINS

Adolescent legal psychoactive substance use – opportunities for screening in primary health care

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Aim: Sustainable Development Goals (SDGs) have set challenging objectives to be reached by 2030 for the governments worldwide. Our aim was to evaluate the SDG progress of Albania in relation to major lifestyle factors and its potential for meeting related targets.

Methods: A meticulous review of the most relevant available evidence related to the major lifestyle factors contributing to morbidity and mortality was carried out. Albania progress was tracked by comparing time-trends of prevalence of selected lifestyle factors, combined with trends of Government efforts, against related Non-communicable Diseases Global Monitoring Framework (GMF) and Albanian National Health Strategy 2016-2020 (NHS) targets.

Results: Based on the actual time trends and government efforts, the reducing of harmful alcohol use by 2030 could be met for both GMF and

NHS targets, reducing tobacco use has already been met, reducing overweight and obesity has already been met with regard to GMF target and already met for children according to NHS target but it is possible/difficult to be met among adults, reducing physical inactivity has already been met for children and youth according to NHS target and it is possible for GMF target, increasing use of fruits and vegetables is possible for both GMF and NHS targets, reducing salt intake and use of sugary sodas and juices is possible for both GMF and NHS targets.

Conclusion: Based on the results and time trends obtained and assuming that all stakeholders will maximally commit and do their best on respective duties and responsibilities, Albania is likely to achieve some of the lifestyle-related SDG targets on time or even earlier and will struggle to keep up with the achieving of obesity and raised blood pressure targets.

KEYWORDS ALBANIA LIFESTYLE FACTORS PREVALENCE SDGS TRENDS

Patient Experiences with Primary Health Care Services - results from Kosova STEPS survey

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Aim: The current study aimed to understand what drives populations to utilize health services and how quality of care is perceived by the patients at Primary Health Care Centers in Kosova. Identification of patient's needs and assessment of the health services provided is the starting point of a patient centered approach in providing health care.

Methodology: The survey was a population-based survey of adults' aged 18-69 using WHO STEPS methodology. Optional STEPS module: health services combines internationally standardized household questions on access to health services and patient experience to identify the perceived quality of services. A multistage cluster sampling design was used to produce representative data for adults 18-69 yr in Kosova. A total of 2695 adults participated in the survey. The overall response rate was 87,7 %.

Results: Research results (unweighted) show that the population often visits primary healthcare centers, so 17.2% of them visited in the last 30 days, 16.5% between 1 and 3 months ago. Of those who used these services 41.1% rated them Excellent, 34,5% Very good, 16.1% Good, 6.8% Fair and 1.6% Poor. But they complained that they could not buy the drugs and perform additional tests if needed because of the extra costs.

Conclusions: Patients' perception of the health services they receive at primary health care is good, but the lack of health insurance makes it impossible for patients to buy prescribed drugs or to do additional examinations.

KEYWORDS ADULTS HEALTH CARE KOSOVA

Maternal and child health, reproductive health and family planning in Albania: Progress, main achievements and challenges

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Aim: The aim of this analysis was to evaluate the SDG progress of Albania in relation to mother and child health, and reproductive health (including family planning) targets and indicators.

Methods: This analysis consisted of a comprehensive desk review of all the available evidence and information related to mother and child health, as well as reproductive health and family planning in Albania. All the retrieved information was used for a detailed evaluation of the progress, achievements and challenges faced by Albania for meeting the SDG targets.

Results: Infant mortality (deaths per 1,000 live births) in Albania has consistently decreased in the past decades in both sexes. In 2017, the overall infant mortality rate was reported at 8 deaths per 1000 live births. Neonatal mortality rate in 2017 was

estimated at about 6 deaths per 1000 live births, constituting 75% of the overall infant mortality rate in Albania (IGME report, 2018). Under-five year mortality rate (deaths per 1,000 live births) in Albania in 2017 was 9.2 deaths per 1000 live births (INSTAT, 2018). There is evidence of a gradual decrease in the abortion rate from 2010 to 2017, followed by a slight increase in the year 2018. Knowledge of family planning is nearly universal in Albania, with 97% of all women and 96% of all men age 15-49 knowing at least one method (ADHS 2017-18).

Conclusion: While generally there is good progress toward achievement of many SDG targets and related indicators for mother and child health and reproductive health in Albania, significant differences remain between minorities and various socioeconomic groupings.

KEYWORDS CHILD HEALTH FAMILY PLANNING MATERNAL HEALTH REPRODUCTIVE HEALTH SUSTAINABLE DEVELOPMENT GOALS (SDGS)

Early Detection of Developmental Disorders of Coxofemoral Joint in Infants at Prizren Hospital

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Aim: To reflect the outcome and usefulness of ultrasound examination in newborns and infants until 6th month of age for early detection of developmental disorders of the coxofemoral joint.

Methodology: This is a descriptive study conducted in the out patient orthopedic ward of Prizren, Kosova, from January 2011 to December 2012 screening 1993 newborns and infants. Ultrasound examination was performed with Simens 5 and 7.5 Hz sound for the bilateral coxofemoral joints, using the method and technique described by Graf.

Results: The majority of infants 1688 (87.3%) were healthy whereas 245 (12.7%) manifested developmental dysplasia of the hip. 171 (69.8%)

infants were girls and 75 (30.5%) boys. Most of them were aged 0 to 45 days 154 (62%) followed by age 45 to 90 days 66 (26.8%, 90 to 180 days 16 (6.5%) and over 180 days 2 (0.8%). The most frequent stage was type II 143 (7.4%) followed by type III 42 (4.2%) and type IV 61 (3.1%). The incidence of hip dysplasia was 1.6% in both hips, 6.8% for the left and 5.9% for the right coxofemoral joint.

Conclusion: Our results obtained from ultrasound examinations of infants and newborns demonstrated the usefulness of this method in the early detection of developmental disorders of the coxofemoral joint.

KEYWORDS DEVELOPMENTAL DISORDER OF HIP EARLY DETECTION SCREENING ULTRASOUND

The Point Prevalence Survey of antimicrobial consumption in Albania, May 2019

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Introduction: Point Prevalence Surveys of antimicrobial use (AMU) and healthcare-associated infections (HAI) are well established surveillance methods for monitoring AMU and HAI in hospitals.

Objectives: The scopes were to have quantified estimates of the prevalence rates of the main HAIs, the main bacteria responsible and resistance levels, but also to evaluate the practices in the antibiotics prescription.

Methods: The PPS will follow the standardized protocol and methodology devised by ECDC. Point prevalence survey of Health association infection and antimicrobial use was carried out according to a standardized methodology developed by the ECDC in Albania providing acute health care in May 2019.

Results: Of a total of 648 patients in the survey, 66% of them received at least one antimicrobial agent. Of 428 patients, 54.2% received one antimicrobial agent, 35.5% received two and 10.3% received three or more antimicrobial agents. Antimicrobials were administered parenteral in 96.6% of cases and in 3.4% orally. The reason for antimicrobial use was documented in the patient's medical records for 14% of prescriptions. The prevalence of patients receiving treatment for a hospital infection was 5.7%. The prevalence of patients receiving surgical prophylaxis was 23.3 %. During the study, a high consumption of antimicrobials was observed, mainly of the other β -lactam group.

Conclusion: This survey was the first conducted in the country. It is important setting-up a tailored antimicrobial stewardship program in each hospital. The challenge remains reinforcement of infection prevention and the medical bacteriology lab capacity by offering antimicrobial susceptibility testing to monitor prescription.

KEYWORDS ANTIMICROBIAL USE HOSPITAL INFECTION PREVENTION

Users' perspectives on non-clinical quality of care in public and private primary health care in urban and rural settings in Albania

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Background: Aiming to tackle the rise of non-communicable diseases and an ageing population, Albania is engaged in boosting primary healthcare (PHC) services and quality of care. The patients' perspectives on their experience with public and private providers are, however, missing, although their viewpoints are critical while shaping the developing services. Consequently, we analyse perceptions of users of public and private PHC services as it relates to non-clinical quality of care and the association to sociodemographic characteristics of patients and the type of provider.

Methods: A facility-based survey was conducted in 2018 using the World Health Organization responsiveness questionnaire which is based on a 4-point scale along eight non-clinical domains of quality of care. The data of 954 patients were analysed through descriptive statistics and linear mixed regression models.

Results: Similar mean values were reported on total scale of the quality of care for private and public providers, also after socio-demographic adjustments. The highest mean scores was reported for the domain 'communication' (3.75) followed by 'dignity' (3.65), while the lowest mean scores were given for 'choice' (2.89) and 'prompt attention' (3.00). 'Autonomy' was reported as least important attribute of quality. Enrolment in health insurance was a predictor of higher quality ratings (coefficient = 0.06, $p = 0.02$).

Conclusion: While the perception of non-clinical care quality was found to be high and similar for public and private providers, promptness and coordination of care require attention to meet patient's expectations on good quality of care. There is a need to shift from a 'paternalistic' model to a 'co-managing the illness', raising awareness on autonomy.

KEYWORDS ALBANIA AUTONOMY COMMUNICATION DIGNITY NON-COMMUNICABLE DISEASE PRIMARY CARE PRIVATE PROVIDER QUALITY OF CARE SOUTH-EAST EUROPE

The role of family medicine providing support to quit smoking

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Aim: Tobacco is one of the biggest public health challenges that Albania is currently facing. Worldwide, tobacco kills more than 7 million people each year. According to the Albanian Population Health Report (2014), smoking is listed as third highest risk factor responsible for most diseases in Albania in 2010, ranking behind diet-related risk factors and high blood pressure.

Methods: The aim of the family medicine is to identify a treatment for all smokers who are willing to quit, those who have not thought of quitting yet, as well as the finding ways to treat former smokers.

Results: Health professionals, in particular family medicine, play an important role in helping smokers quit. It is these health professionals who come into contact with effected smokers that should provide first aid through interventions. Every patient who smokes should receive treatment or advice during every appointment.

Conclusion: For the most effective treatment your family doctor should:

Document the treatment of each patient and systematically identify smokers during appointments.

Identify and evaluate the status of patients who use tobacco. In terms of treatment we have three categories:

- Patients who are smokers and ready to quit. In these cases: questionnaires, advice, evaluation, should be practiced.
- Tobacco patients who are not ready to quit smoking. In these cases the doctor should help them by using short interventions to motivate them to quit smoking.
- Patients who have recently quit smoking. We need to make sure they do not resume smoking.

For smokers whose short interventions are effective, this treatment should be offered at least once. Evaluate and determine the patient's efforts and willingness to quit smoking. Recognize and recommend approved pharmaceutical preparations that help quit smoking.

KEYWORDS FAMILY DOCTOR QUIT SMOKING TOBACCO

Nutrition surveillance and the importance of intersectoral collaboration

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Aim: The aim of this presentation is to advocate for the need of cross-sectorial collaboration to introduce nutrition surveillance.

Methods: This presentation is based on local surveillance, working meetings with staff in 18 Health Centers, Neonatology, Pediatrics service (Durrës Regional Hospital) and Child Protection Unit Durrës (Durrës and Shijak Municipality), IPH, UNIEF Albania Office. Also, this presentation is based on strategic documents of the World Health Organization (WHO), UNICEF, MHSP-Albania, IPH - Albania.

Results: Infant nutrition indicators have improved, especially breastfeeding in the first hour after birth. More local actors are being involved in healthy nutrition issues.

Conclusion: Today, everyone has turned attention to health as a key factor in the social, economic and human development of society at the global, regional, national and local levels. A healthy life style with good nutrition. Increasing exclusive breastfeeding rates remains a priority for us to improve nutrition, prevent mortality and, in the long term, prevent non-communicable diseases (NCDs). Healthy nutrition improves when health and non-health institutions, above all local government, join efforts.

KEYWORDS BREASTFEEDING NUTRITION SURVEILLANCE NON-COMMUNICABLE DISEASES

Public Health - Family Physician and Occupational Health Partnership

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The political and economic changes after the 1990s brought about a number of changes in the economy, as well as in the health services provided to employees. Over the last 3 decades, occupational health legislation has undergone substantial changes in alignment with that of the European Union. The economy has taken another turn by exposing the employee to a variety of risk factors with health consequences. Unlike the economy of the '90s, a number of enterprises have been set up with potential health risks for their employees, but also with the emergence of occupational diseases and accidents at workplace.

Our actual assessments show that there is a disconnection between public health structures with the State Health Inspectorate, the occupational physician and the family physician. Currently these sectors work independently and there is a lack of coherent information to perform a present risk assessment at the workplace and the employee's health.

The first case presented is a mechanical industry of 200 employees with different risk factors, but with predominance of noise in the workplace, with 8% hearing loss.

The second case presented is newly created manufactory with young employers with an average age of 35 years, 95% of them female, have been evaluated and issued a certified document as "capable for work" without any assessment of workplace risk factors.

In this situation we recognize the need to organize a network of public health structures that assess and analyze health risk factors related to the workplace, the roles of the occupational and family physician, achieving partnerships agreement between these services and with the support of the State Work Inspectorate structures.

KEYWORDS ACCIDENT WORKPLACE EMPLOYEES OCCUPATIONAL DISEASES

SESSION 2

The vulnerable groups and their access to PHC services

MODERATORS: GENTIANA QIRJAKO | MERITA BERISHA

“Mental Health Promotion and Intervention in Occupational Settings” (MENTUPP) project in Albania and Kosova

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Mental health problems in the workplace have a significant economic and social cost. They are associated with higher rate of disabilities and unemployment. Promoting mental health in the workplace may results succesful in reducing burden of depression and anxiety.

MENTUPP aims to improve mental health and wellbeing in the workplace by developing, implementing and evaluating a comprehensive, multilevel intervention targeting both clinical (depressive, anxiety disorders) and non-clinical (stress, burnout, wellbeing, depressive symptoms) mental health issues, as well as combating the stigma of mental (ill-) health. The intervention will be tailored for SMEs in construction, healthcare and ICT and assessed in a multicountry Cluster Randomised Controlled Trial. MENTUPP will generate, for the first time, extensive rigorous evidence describing the interventions that effectively address the causes of mental illness in these challenging workplace environments. The primary aim is to improve mental

health in the workplace, with a secondary aim to reduce depression and suicidal behaviour.

MENTAUPP includes 15 partners (including Albania and Kosova), 11 collaborators and 4 advisors from research, health, policy and NGO institutions, representing an experienced multidisciplinary and interdisciplinary network of experts seeking to improve mental health and wellbeing and reduce suicidal behaviour across different occupational sectors in 8 high and middle-income European countries.

Implementation of this project in Albania and Kosova will initiate discussions on improving health policies in workplace as well as promote mental health in workplace by undertaking evidence-based interventions. Additionally, it will help our healthcare professionals working in the field of mental health successfully use the MENTUPP platform in the workplace, strengthening research and interventions in this important environment.

Breastfeeding for the babies in NICU and the impact on neonatal morbidity (ECUN), a study at UHOG “Koço Gliozheni” in Tirana

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Aim: ECUN is one of the most common pathologies affecting preterm infants, associated with very high morbidity and mortality. It is an inflammatory bowel disease, often accompanied by sepsis and complicated by perforation, peritonitis and death. Despite significant neonatal advances, ECUN is often an incurable disease due to unknown etiology and lack of preventive and therapeutic strategies. The aim of this study was to shed light into the incidence of ECUN in premature babies at the UHOG “Koço Gliozheni” in Tirana.

Methods: A retrospective study was conducted at NICU, at UHOG “Koço Gliozheni” in Tirana, and covers the period between January 2018-December 2018. Early-born infants’ cards during this period, grouped by age group and weight group were studied. The total number of cards included in the study is 259. Bell’s classification with its stages was used to establish the diagnosis. The infants included in the study were compared regarding the variables: mean age at birth, mean birth weight, gender (F / M), mortality, day care in the neonatal intensive care unit, neonatal morbidity associated with NEC, and various complications.

Results: During this period, 3868 babies in total were born at the “Koço Gliozheni” University Obstetric-Gynecological Hospital. Preterm-born infants, age 22 ÷ <37 weeks are a total of 265 infants. Preterm-born babies transferred to NICU were 259 babies in total. Preterm-born babies with a diagnosis of NEC have a total of 0 babies. According to the NICU protocol, it was found that the only food used in premature and especially premature babies is breast milk. Day care in the NICU, before the baby has excitus ranges from 0.5 days (a baby with congenital polyanomalies) to 46 days after birth.

Conclusions: The incidence of NEC in preterm-born babies at NICU, at UHOG “Koço Gliozheni” is very low, almost zero. The life expectancy of preterm-born babies has increased in NICU in our country. Breastfeeding-only feeding is almost the only feeding applied to NICU. Breast milk contains unmatched and highly valuable values that prevent the emergence of NEC in preterm born babies.

KEYWORDS BREAST MILK ECUN NICU PRETERM BABIES

A future for world's children- Lancet Commission global findings and relevance for Albania

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A landmark report was released on February 19, 2020 by a Commission of over 40 child and adolescent health experts from around the world. The Commission was convened by the World Health Organization (WHO), UNICEF and The Lancet.

The report constitutes the first comprehensive, independent report to reposition every aspect of child health through the lens of our rapidly changing climate and other existential threats. This report explores how different sectors can better contribute to a world in which our children can flourish in a sustainable manner.

Despite many successes with better child survival, a reduction in vaccine-preventable diseases, and improvements in under-nutrition, literacy and access to health care, our children face new threats. Climate change is a dominant and existential threat to all children. Pollution, conflict, migration and longer-term reversals in life expectancy from obesity are additional challenges. Equally, children

also face increasing exploitation from commercial advertising and social media through promotion of inappropriate foods, alcohol, tobacco, gambling, sexual exploitation and theft of personal data. The health and future of children in every country is at risk.

The proposed areas for action include: i) protection of children from the identified threats, ii) regulation of harmful commercial marketing, iii) investment in children to address the sustainable development funding gap, iv) measurement of country progress with indicators of both children flourishing and carbon emissions, and v) empowerment of children.

In order to monitor SDG progress for children, two important indexes were introduced: the child flourishing index constructed based on key child survive and thrive indicators, and a proxy sustainability index for the future based on excess CO2 emissions relative to 2030 targets.

Prevalence of child maltreatment among young people aged 15 in Albania: Results from HBSC 2017/2018

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Background: Child maltreatment is a global problem with enormous immediate and life-long consequences. It causes suffering to children and families, and it's associated with delayed cognitive development, poor school performance, mental health problems, increased health-risk behaviours, revictimization and the perpetration of violence. The Health Behaviour in School –aged Children survey (HBSC) is a school based survey which assesses many aspects of young people's life. It explains how determinants and health behaviours in childhood and adolescent lead to ongoing physical and mental health problems in adulthood.

Methods: HBSC is based on self-administration of questionnaires by young people in classes. During the months of May-June 2018, HBSC study was conducted in all 12 prefectures of Albania among 4833 children (51.8% girls and 48.2% boys) aged 11, 13 and 15 years. Measurement of child maltreatment, restricted only to young people aged 15, included assessment of lifetime and/or past month physical and emotional abuse.

Results: One in four young people (26%) reported to have been physically abused once or twice in lifetime, whereas 6% had experienced physical abuse many times during their life span. About 11% of the young people reported to have been physically hurt by their parents or other adults in their households during the past 12 months. There were no significant gender-differences in both questions. The prevalence of lifetime emotional abuse was 16%, with a significant difference between boys and girls (13% vs. 18%). The overall prevalence of past year emotional abuse was about 9%, without evidence of any significant difference between boys and girls.

Conclusion: Preventing child maltreatment requires a multisectoral approach. Effective programmes are those that support parents and teach positive parenting skills. The earlier such interventions occur in children's lives, the greater the benefits to the child. There is an urgent need to implement these programs in Albania, under the guidance of both health and social professionals.

KEYWORDS ALBANIA CHILD MALTREATMENT HBSC SURVEY YOUNG PEOPLE

HIV prevalence among Pregnant Women in Albania during 2019

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Background: Albania continues to have a low HIV-prevalence epidemic. At the end of December 2019, a total of 1306 HIV cases had been reported, however, the number of reported new HIV cases has been increasing in recent years. The number of HIV positive children was reported 45, and 36 out of them have contracted HIV from their infected mothers. The efforts to establish the PMTCT Program in Albania has started in recent years but it was only in 2019 that we put in place the Standards of PMTCT (Prevention of Mother to Child Transmission) at antenatal care level.

Methods: This study was conducted to determine the seroprevalence of HIV among pregnant women in Albania during the year 2019, and to describe HIV testing coverage and the uptake of antenatal care (ANC). Data on HIV testing among pregnant women were collected from reports to the National Aids Program but some of the pregnant women had conducted the HIV test at private clinics (the data of HIV testing from private clinics are missing), this number can be somewhat higher. Every reactive or positive test was delivered to IPH to be confirmed with WB test.

Results: In 2019, the number of pregnant women aged 15-49 years who received an HIV test at antenatal delivery services in Albania was only 3% (1194) out of the total number of reported HIV tests done. Out of 1194 women tested for HIV during pregnancy, HIV was reported for 0.17% (2 cases) and apart of those, one other pregnant woman was reported as an HIV positive case in 2017. The three cases were respectively reported in Vlora, Pogradec and Elbasan. HIV testing coverage among pregnant women was higher in Lezha, Gjirokastër, Vlora and Korça districts.

Conclusions: The HIV prevalence among children infected through vertical transmission in Albania is less than 3% and the coverage of ANC is very low (less than 4% of pregnant women received an HIV test in 2019). However, gaps in HIV testing and ANC challenge the prevention of the vertical transmission of HIV in Albania. More efforts are needed to address the implementation of PMTCT program at a national level involving all districts in the country.

KEYWORDS ALBANIA HIV PREGNANCY PREVALENCE

Prevalence of anaemia in Albanian children aged 6- 59 months, a comparison of the result from ADHS 2008/09 and 2017/18

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Aim: Anaemia is a serious concern for children because it can impair cognitive development, stunt growth, and increase morbidity from infectious diseases. Iron deficiency is the most common nutritional deficiency worldwide and an important public health problem especially in developing countries. The most common causes of IDA (iron deficiency anemia) observed in children include inadequate food intake, low birth weight and gastrointestinal losses due to excessive consumption of cow's milk.

Methodology: A comparison of the results from Albanian demographic and health surveys (ADHS 2008-09 and 2017-18) was conducted to identify trends and distribution of anemia between 2018 and 2009 in Albania.

Results: One in four (25%) children age 6-59 months are anemic (hemoglobin below 11 g/dl),

from those 17% of them are mildly anemic, 7% are moderately anemic, and less than 1% of them are severely anemic in 2018. The prevalence of anemia among children age 6-59 months has increased from 17% in 2008-09 to 25% in 2017-18. There are significant variations in the prevalence of anemia across prefectures; 44% of children in Dibra are anemic, compared to 18% of children in Tirana. The prevalence of anemia is higher in rural areas (27%) than in urban areas (22%) and it decreases with increasing mother's education and household wealth.

Conclusions: Results highlight the need for interventions to understand the reasons of this situation and plan for other interventions to improve the situation of anemia in children aged 6- 59 month in Albania.

KEYWORDS ANEMIA CHILDREN IRON DEFICIENCY PREVALENCE

Implementing an online intervention (iCBT) for depression in Kosova: involving family doctors as partners

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Aim: To discuss a mental health gap in LMICs (as Kosova) as often discussed topic in literature; where e-Mental Health interventions are seen as an opportunity to alleviate the gap of limited resources and limited access to mental health care and the need for partnering with family doctors.

Methods: To describe implementation in Kosova mental health community services struggling with many shortcomings, of an online intervention (iCBT) for mild/moderate depression (IFightDepression) under the ImpleMentAll project, funded by the EC-Horizon 2020 framework; with the aim of developing, implementing, and evaluating tailored implementation strategies for e-health interventions (iCBT) for depression.

Results: Before the implementation, our cross-sectional exploratory surveys of general population/mental health professionals despite little knowledge about this intervention; mostly viewed as potentially applicable, helpful and an additional opportunity

for patients. During three years of implementation among the many challenges faced was under-referrals by family doctors. Lack of awareness of iCBT is seen as potential barrier to overcome with educational activities as raising awareness: interactive lectures, group discussions, direct meetings with them at workplaces, dissemination of information material. Family doctors have become involved and have gained closer and more grounded knowledge of depression, iCBT and online health interventions; they have realized that there is an opportunity for cases that need treatment; the collaboration of mental health institutions with family medicine has increased.

Conclusions: Family doctors are valuable source of referrals for iCBT interventions and for the exploitation of the potential of iCBT to reduce mental health gap in Kosova. Lessons learned will guide us in further potential establishment of iCBT as usual service in our community mental health system.

KEYWORDS E-MENTAL HEALTH FAMILY DOCTORS MENTAL HEALTH IMPLEMENTALL ICBT KOSOVA

Focus on Primary Health Care and UNICEF's work in Albania

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Effective and sustainable primary health care is a cornerstone for achieving the health-related SDG targets.

UNICEF's Health Strategy (2016-2030) vision is a world where no child dies from a preventable cause and all children reach their full potential in health and wellbeing.

Universal Health Coverage for every child, built on a strong base of Primary Health Care (PHC), is crucial to fulfil this vision. Approaches employed by UNICEF globally to strengthen primary health care include: i) addressing inequities in health outcomes; ii) health system strengthening; iii) promoting integrated packages of care across the life course; iv) implementing multisectoral programmes; v) supporting emergency preparedness and resilience.

UNICEF in Albania aligns its country programme with national development priorities, country commitments in the EU accession process, and contributes to implementation of the Convention

on the Rights of the Child (CRC) and achievement of the Sustainable Development Goals.

In the new Country Programme (2022-2026) currently being discussed, UNICEF plans continue support the PHC to provide integrated, quality, financially sustainable and equitable maternal, new-born and child health and nutrition services, focusing on early detection of developmental difficulties, and early interventions for children at risk of inadequate care and nutrition. Evidence based advocacy and capacity development will contribute to improve the quality of neonatal care services. UNICEF will continue to advocate for the inclusion of child and adolescent nutrition in important health policy documents and action to improve nutrition outcomes across the life cycle, and will engage with families and communities to improve childcare practices and address vaccine hesitancy. UNICEF's work in adolescent health will focus on overweight and obesity prevention and addressing mental health concerns among adolescent girls and boys.

KEYWORDS CHILDREN PRIMARY HEALTH CARE SDGS UNICEF

Breastfeeding in NICU-hospitalized infants during the Covid-19 pandemic: Results from UHOG “Koço Gliozheni”

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The COVID-19 pandemic is disrupting normal life globally and every area of life is affected. This may be especially true for mothers who are breastfeeding and concerned about their baby’s health. To plan and support breastfeeding within the current pandemic, two areas need to be understood: i) the clinical characteristics of COVID-19 as it applies to breastfeeding and; ii) the protective properties of breastfeeding, including the practice of skin-to-skin care.

Breastfeeding protects neonates, infants and children against morbidity and death. The protective effect is particularly strong against infectious diseases, due to the direct transfer of antibodies as well as anti-infective factors and long-lasting transfer of immunological competence and memory.

Breastfeeding has both short and long-term benefits for the mother and her infant. To benefit from the protective factors in breast milk, every effort should be made to support and enable early and immediate initiation of breastfeeding. Not only does the early initiation decrease neonatal deaths, but together with frequent breastfeeding, ensures that the breastfeeding dyad are not separated.

The neonate has an immature immune system and colostrum, a powerful immune booster, protects infants from infections by means of bioactive factors and secretory IgA antibodies. Breast milk with its

abundant source of immunoglobulins, lactoferrin, lysozyme and cytokines play an important role in absorbing and engulfing harmful micro-organisms and targeting specific bacteria and providing protection by regulating the immune response. Human milk oligosaccharides, abundant in human milk, shape the microbiome, provide probiotics and modulate the developing immune system also displaying anti-adhesive effects for bacterial antigens. All the above are compelling reasons for every infant to receive only breast milk and preferably their own mothers’ milk. Continued breastfeeding and zero-separation of the mother-infant dyad appears to be the best practice in this situation.

The ICM concur with UNICEF, the ABM and RCOG in that currently there is no evidence that respiratory viruses can be transmitted via breast milk. Therefore, breastfeeding should be continued while general infection control measures are applied in symptomatic mothers and when mothers are too ill to breastfeed. Mothers who are too ill to breastfeed could express milk, and a healthy individual could then cup, or spoon feed the infant.

Breastfeeding should be encouraged, mothers and infant dyads should be cared for together, and skin-to-skin contact ensured throughout the COVID-19 pandemic. If mothers are too ill to breastfeed, they should still be supported to express their milk, and the infant should be fed by a healthy individual.

KEYWORDS **BREASTFEEDING** **COVID-19** **MOTHERS** **VULNERABLE NEW-BORNS**

Implementation of an internet based psychotherapy platform in three Community Mental Health Centers in Albania: identifying and addressing obstacles in relation to treatment implementation

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Aim: Presenting the implementation challenges of an e-intervention for depression called “I Fight Depression Tool” in three Community Mental Health Centers (CMHC) in Tirana, Shkodra and Korça. The aim is to present the intervention and provide insights on the achievements and challenges faced when implementing and integrating this innovative intervention to current practices in CMHCs. The objectives are to identify implementation obstacles, possible solutions and preliminary results of the implementation process.

Methodology: Site visits, individual and group interviews were carried out between 2017 to 2019, descriptive reports were used in order to evaluate the implementation activities for each site. Presentation of the organizational issues at implementation level and therapists self-perceptive challenges is provided.

Results: Implementation and integration of “I fight depression” tool remains a challenge for our implementation sites. In order to meet and resolve these challenges we have identified the following obstacles such as lack of internet usability and accessibility, patient’s level of education and cognitive barriers, unclear working roles and organizational issues related to the implementation staff.

Conclusions: Identifying and addressing patients’ individual needs in using the platform, staff’s issues related to implementation of ICB and organizational issues can contribute to a high rate of accessibility to patient’s uptake number, treatment compliance and good treatment outcome. Identifying and addressing these obstacles at individual and organizational level is of vital importance for a successful implementation of internet based interventions in community based mental health centers.

KEYWORDS INTERNET-BASED PSYCHOTHERAPY PLATFORM IMPLEMENTATION CHALLENGES ORGANIZATIONAL READINESS FOR CHANGE

HIV–SARS COV-2 coinfection during COVID-19 epidemic in Albania

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Aim: Albania continues to have a low HIV-prevalence epidemic. At the end of December 2020, a total of 1403 HIV cases had been reported, however, the number of reported new HIV cases has been increasing in recent years. SARS-CoV-2 infection among People Living with HIV (PLWH) is not well-described. However, it remains unclear whether PLWH are at an increased risk of COVID-19 and severe disease manifestation, with controversial suggestion that HIV-infected individuals could be protected from severe COVID-19 by means of antiretroviral therapy or HIV-related immunosuppression.

Methods: This study was conducted to study HIV-SARS-2 among PLWH in Albania during the year 2020, in order to provide an overview of this co infection. The data have been collected from clinical files of PLWH at outpatient clinic/ MTUH.

Results: Based on the data of clinical files, the number of PLWH infected with SARS COV-2 was

18. Out of them 61 % were males and 39 % were females. The median age of PLWH was 44.5 yr. old, which is lower than the median age of individuals infected with SARS COV-2. Most of them were living in Tirana (14 cases or 77.8%) and the rest in Shkoder, Korce, Lushnje and Fier (respectively 1 case for each district). 4 cases were reported as HIV positive in 2020 and the rest in the previous years (from 2003 to 2018). Most of them have had mild symptoms and signs, 9 patients were on ARVs and only one case (reported in 2020 at late diagnosis of AIDS) died from this co-infection.

Conclusions: It is impossible to draw conclusions from the extremely small number of SARS-CoV-2-HIV-coinfected patients reported in Albania, in 2020. A sero-surveillance should be conducted among PLWH to better understand this coinfection.

KEYWORDS COINFECTION COVID-19 HIV SARS COV-2

Violence against women in Albania: Comparison between two ADHS carried out in Albania

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Aim: According to WHO, 1 in 3 women around the world experience physical or sexual violence. This makes it the most widespread, but among the least reported human rights abuses. The aim of this analysis was to compare the results from 2008–2009 and 2017–2018 ADHS in relation to violence against women in Albania.

Methodology: Albanian Demographic Health Survey is a nationally representative survey designed to provide information on population and health issues in Albania. In both last surveys (2007/08 and 2017/18), the measurement of violence against women was assessed through the frequency of violence against women during the last 12 months from their intimate partner (husband/partner).

Results: Respondents were asked whether they accept that a spouse is justified in physically

assaulting or abusing his wife. There is an important decrease in justification women abuse during the last ADHS survey. Only 7% of women and 11% of men justified woman abuse from her spouse in 2018 (accept at least one of the reasons specified as an excuse for a husband to physically assault his wife) compared with 30% of women and 36% of men in 2009. The level of education as well as the socio-economic status was inversely associated with the acceptance of wife beating.

Conclusion: Despite improvements in violence against women perception in Albania, this issue still remains problematic. Albanian society continues to be a patriarchal society, where violence against women is widely justified and accepted. There is an urgent need to raise awareness among relevant stakeholders on undertaking effective campaigns for combating violence against women and domestic violence.

KEYWORDS ALBANIA ADHS VIOLENCE WOMEN

Prevalence of bullying among school-aged children in Albania: Results from HBSC study 2018

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Background: Violence among children has lifelong impacts on health and well-being of children. Studies have particularly emphasized the negative mental health outcomes of being a victim, which include psychological maladjustment, psychosomatic health problems and suicide. Bullying can take many forms of behaviour, including direct and indirect physical and psychological aggression, verbal harassment, negative gestures, and peer isolation.

Methods: HBSC is a school-based survey with data collected through self-completion questionnaires from children. The last round of HBSC survey conducted in Albania in 2018 included 4833 school-children (48.2% males vs. 51.8 % females) aged 11, 13 and 15 years. In the survey measurement of bullying included assessment of having taken part in bullying (both perpetration and victimization) and having taken part in cyberbullying (referred to as perpetration of cyber bullying and victimization) in the past couple of months before the survey.

Results: HBSC study identified that bullying was more common among boys and more frequent in children aged 13. Only 17% of school-aged children had bullied others once or twice during two months before study. Regarding the bullying victimization, about 22% of children reported that they have had at least one episode of bullying at school. On the other hand, about 12% of the children had cyberbullied others, and 11% of them reported having been cyber bullied during two months before the survey.

Conclusion: Evidence suggests that school-based intervention can be successful in reducing bullying-related behaviors if these interventions are based on a broad multidisciplinary approach and the participation of the entire school community. Also, the involvement of school staff in preventive interventions plays an essential role in the success of these programs.

KEYWORDS BULLYING CYBER BULLYING CHILDREN HBSC SCHOOL-AGED CHILDREN

Prevalence of viral hepatitis B, C and D in Roma population of Tirana, Albania

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Aim of the study: Roma population is vulnerable to viral hepatitis and serological screening is a very important issue. The aim of this study was to acquire serologic data for different markers of viral hepatitis B, C and D in Roma population of Tirana.

Methods: This was a retrospective study. Samples sera were collected during April-July 2014 and September-October 2015. A total of 273 healthy adults of Roma population were included in the study. The sera were examined in the Laboratory of Immunology, Institute of Public Health in Tirana. Immunochromatographic, rapid test was used to screen the sera for HBV (HBsAg) and for HCV (anti-HCV). Positive cases were tested immune enzymatically by ELISA. ELISA was also used to quantify different markers of viral hepatitis: anti-HBc IgM, HBeAg, anti-HBe and anti-HDV.

Results: HBsAg was positive in 9.8% (27/273) and anti-HCV was positive in 1.1% (3/272) of the cases.

In HBV positive participants, 15 were females and 12 were males, while in positive HCV cases, 2 were male and 1 was female. 26 samples of HBsAg positive sera were tested for anti-HBc-IgM and 2 (7.6%) of them were positive.

8% (2/25) of HBsAg positive sera were HBeAg positive and 96% (24/25) of them were anti-HBeAg positive. Viral hepatitis D (anti-HDV) was positive in 8% (2/25) of HBsAg positive sera.

Conclusions: Viral hepatitis B remains to be very common in Roma population.

Prevalence of viral hepatitis C in Roma population is comparable to the prevalence of general population.

There is a need to increase the awareness related to transmission, vaccination and health behavior in Roma population.

KEYWORDS ROMA POPULATION VACCINATION VIRAL HEPATITIS

The changing role of family health nurses in response to Covid-19

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Nurses today work in a dynamic health care environment. Their roles and functions are constantly evolving and changing to meet patient needs as well as incorporating service needs such as workforce shortages, skill mix issues and budget constraints. Nurses make up the largest workforce within the National Health System, and are among the first people present to provide care during periods of crisis.

Nursing workforce in Albania like in many others countries today has made a substantial contribution during the Covid-19 public health emergency.

A Context analysis in view of the development and implementation of new job profiles and roles for family nurses in Albania showed that this updating is considered very important, as Albania has to face with new challenges in primary care created by a changing spectrum of illness and disorders

and the growing necessity to find needs based solutions for complex, long-term health problems.

The lessons learned so far from the COVID 19 pandemic clearly showed the immense cost of inaction; inequitable response to Covid-19; nurses are and will continue to be at the frontline of patient care in hospitals and actively involved in community evaluation, monitoring and awareness raising regarding disease prevention and in reduction of the dissemination of myths regarding the epidemic. These lessons emphasize the need for strong nursing staff engagement in clinical management, awareness and knowledge exchange, and public safety during a global pandemic. Therefore, a strengthening of nurses' knowledge and skills is needed for more positive results now and to secure a preparedness for future outbreaks.

Updates on new job profiles and roles for family nurses in Albania should also address these needs.

KEYWORDS COVID-19 FAMILY NURSES NEW JOB PROFILES PRIMARY HEALTH CARE

Application of iCBT intervention in a community mental health center in Tirana for the treatment of depression. Implementation challenges related to natural emergency disasters

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Mental health is a major public health issue in Albania. During the last 20 years health reforms have been taken in order to improve mental health services and make them more reachable and effective for those in need. Inclusion of psychotherapeutic services in public mental health settings is a relatively new intervention. Most psychologists and social workers working in community based mental health services lack knowledge and skills to provide evidence based interventions. Also the existing mental health services lack the resources to accommodate and provide services for all the population in need. The poor infrastructure and limited number of interdisciplinary health professionals in place creates work overload and decreases treatment efficiency. Considering these challenges, the Ministry of Health agreed to include one of the Community Based Mental Health Centers in Tirana (QKSHM, No. 1) in a pilot project called Implement All which aims to improve the implementation of e- mental health interventions by using an internet based platform called "I Fight Depression" for the treatment of patients with depression. The project started in 2017 with preparatory activities such as translation and adaptation of the platform in Albanian language, introduction of the intervention and treatment protocol to the mental health professionals, training

of the psychologists on CBT and application of iCBT interventions. The platform became operational in June 2018. Since then more than 50 patients were given access to the platform by the therapist from the QKSHM 1 with the purpose of self-managing their depressive symptoms. Therapist also provide expertise and guidance to patients while using the platform. One of the major challenges related to the implementation of this new intervention have been the recent natural emergency events that slowed down the implementation process. Since then, the staff has been moving out twice due to the lack of an appropriate housing conditions that would accommodate and make it possible for them to continue with the implementation of the intervention. Despite the fact that the staff had to deal with infrastructure problems such as: a dysfunctional electric system or lack of space to put on computers in order to deliver the intervention, the staff decided to continue with the implementation by using the face to face CBT intervention and also using the platform guidelines as an instrument for the treatment of patients with depression. This bold and professional decision was made based on the needs of the patients to continue the treatment and the staff's intention, particularly the therapist's aim to improve their treatment skills on CBT.

KEYWORDS COMMUNITY MENTAL HEALTH CENTER ICBT INTERVENTION TREATMENT OF DEPRESSION

The prevalence of depression among Albanian population aged 15-59: some results from ADHS 2017/2018

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Aim: Depression is a complex mental and emotional condition, commonly associated with being sad, despairing mood and with decrease of mental productivity and reduction of drive. The aim of this study was to assess the prevalence of depression in Albania population.

Methodology: Albanian Demographic Health Survey 2017/2018 is a nationally representative survey designed to provide information on population and health issues in Albania. In total, 16955 households, 15000 females and 6142 males aged 15-59 years, participated in the survey. Measurement of depression included question about feeling depressed in the past two weeks or if they ever were diagnosed by a health professional with depression.

Results: The proportion of respondents age 15-59 who reported having felt depressed a lot of the time in the 2 weeks preceding the survey was

11% among women and 16% among men. This phenomenon was more prevalent among males in both, urban and rural areas compared with females (17% vs. 8% in urban areas and 14% vs. 12% in rural areas). Only 2% of women and 4% of men age 15-59 have reported this issue to a health professional. Household wealth also influences the experience of depression: 14% of women in the lowest wealth quintile report having been depressed a lot of the time, and 4% report having been depressed all of the time in the 2 weeks before the survey. Among women in the highest quintile, these proportions are respectively 5% and less than 1%.

Conclusion: The results of ADHS 2017/2018 regarding to mental health issues need to be analyzed carefully. The higher level of depression among males compared to females need further investigations. There is an urgent need to work more on promoting health behaviours among Albanian population for increasing the quality of life.

KEYWORDS ALBANIAN POPULATION ADHS 2017/2018 DEPRESSION

Health needs and access to primary health care among older people in Albania: Comparisons between 2008 and 2017 MOSHA surveys

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Aim: Albania is one of the last countries in Europe to experience effects of population ageing. The proportion of the population over 65 years of age in Albania rose more than three times during last 25 years. Prevalence of a number of health conditions is expected to be higher among older people and most of them can be addressed at primary health care. We use data from two surveys carried out among older people to quantify their health and social needs as well as access to primary health care in three regions of Albania.

Methods: There are two cross sectional surveys carried out in 2008 and 2017. Their methodology is similar and comprises the subjective measuring of a range of health and social problems by means of a questionnaire. The sample in both surveys was made of around 1000 persons over 65 years old randomly selected from a number of health centres catchment areas. The sampling was limited to the regions of Tirana, Vlora and Shkodra. The comparison is used for variables which are identical or similar in both surveys.

Results: In 2017 15.8% of older people had not contacted a doctor in primary health care although

felt sick. This is a net improvement compared to 25% of older people in 2008 study reporting not to contact their doctor when needed. The problem was higher for women than for man (17% vs. 14%) and in rural compared to urban areas (25% vs. 14%). In 2017 24.7% of participants reported that they could not take prescribed drugs, mainly because they could not afford them. The level of inability to pay for drugs was higher in rural areas and informal areas (about 28% and 31%, respectively). In 2008 study the rates were much higher at about 65% of older people not being able to get the medicines.

Conclusions: The population based data for this age group have been traditionally scarce and this work provides an unique opportunity to observe health care needs and utilization of primary health care. The results show an improvement in access of older people to basic health care services. Nevertheless, there is still a large proportion of older people avoiding the visit to the doctor and taking the prescribed medicines demonstrating the existence of significant barriers in utilization of health care. Primary health care in Albania needs to be adapted to demographic changes in the country and specific needs of older people.

KEYWORDS HEALTH NEEDS OLDER PEOPLE PRIMARY HEALTH CARE POPULATION-BASED SURVEY

Trend of Hypertension and Diabetes in the Elderly in Kosova Primary Health Care 2011-2018

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Introduction: The elderly are increasingly in the focus of health and social policies due to the ageing trend and expenses in the health sector. Life expectancy at birth averages 81 years in EU countries while for Kosova it is estimated at only 71.9 years for 2017. The natural increase of the population, during the years 2011-2018 presents a slight downward trend, with an average of 10.3 ‰ and an average annual decrease of 0.5 ‰. The leading causes of death across EU countries: remain circulatory diseases and cancers - over 60% of all deaths. The consequences of morbidity in this category are great due to age-related sensitivity and lack of financial security in terms of health insurance. As a consequence is the deprivation of social activity, isolation, feelings of loneliness and neglect that reflect on their mental health and well-being but also that of the family and community. The purpose of this paper is to analyze trend of the most common diseases of the elderly in the PHC in Kosovo for the period 2011-2018.

Methods used is descriptive, retrospective based on reports on the level of PHC from the National Institute of Public Health Information Department of Kosova and reports as: Health Status Analysis 2018 and Morbidity Analysis in the Elderly 2011-2018. Data were analyzed by age, sex, and most frequent diagnoses. Statistical parameters such as trend, basic Index and Chi square test were calculated.

Results: The prevalence of diabetes and hypertension as the most common diseases within the most

participating disease groups by years, in Kosova for the years 2011-2018 show a decline. For the period in question, there is an average of 43 932 cases of hypertension per year and an average decrease of 4 729 cases per year. While with diabetes there is an average of 10 192 cases, an average decrease per year of 1 054 cases was registered.

Conclusion: The prevalence of diabetes and hypertension as the most common diseases within the most participating disease groups by years, among elderly in Kosovo for the years 2011-2018 show a decline. For the period in question, there is an average of 43,932 cases of hypertension per year and an average decrease of 4,729 cases per year. While with diabetes there is an average of 10,192 cases, an average decrease per year of 1,054 cases was registered. By gender, the difference is significant for all years for female gender except 2012 where there are more ill males than females from the presented diseases.

Recommendation: Decrease avoidable hospitalization of Hypertension and Diabetes through PHC quality improvement strategies on screening and monitoring of HT and T2D, primary care treatment and collaboration between caregivers. Empowerment of implementation of Clinical guidelines in site (HT Management and Pharmacological Management of adult T2D) and increase health education among elderly regarding Hypertension and Diabetes issues on strengthening self-management skills.

KEYWORDS DISEASES DIABETES HYPERTENSION MORBIDITY

Treatment of Depression Via Internet: the Experience of the Mental Health Community Center in Korça

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Aim: Depression is a frequently encountered problem that affects approximately 1 in 5 women and 1 in 10 men throughout their lives. Beside the traditional ways of dealing with this problem, during the last 2 years our mental health center has been implementing an online platform program called "I fight depression" that is used to treat adults and adolescents who suffer from mild or moderate forms of depression. The purpose of this research is to reflect the experience of the mental health community center of Korça during the implementation of this platform indicating the progress of this new form of treatment, the challenges and the innovations it induces.

Methodology: The study has been conducted by reviewing the literature on this platform as well as by collecting general implementation data from the users of this platform based on their progress in accomplishing the CBT based treatment workshops. Eight professionals from the mental health center (psychologists, doctors, social workers and nurses) have been engaged to collect the general implementation data from the patients using the internet based platform.

Results: 41% of the individuals who have been registered for the treatment of depression through

the online platform do not have enough knowledge on how to use the internet as a form of treatment. Over 60% of the users show a low commitment to perform the workshop sections on their own without professional support as a result of their depressive mood. Difficulties in using the online platform are encountered by individuals based on their socio-cultural level and /or age group, leading to a significant part of the participants giving up on completing this therapy. About 68% of platform users reside in rural areas and 32% of them reside in urban areas, the female population accounts about 65% of the clients versus 35% males. Only 20% of users have been regularly active and have completed the treatment.

Conclusions: This study suggests that "I fight depression" is a platform mostly welcomed by young people of age group 20/30 years old as well as by individuals living in urban areas who have a higher socio-cultural level. This treatment had more positive results on the users that were consistently followed by a mental health professional throughout all the stages of the platform. Difficulties in applying this new treatment were mostly encountered in the rural areas due to a lack of internet accessibility and computers or cellphones.

KEYWORDS **DEPRESSION** **MENTAL HEALTH COMMUNITY CENTER** **ONLINE PLATFORM** **ONLINE THERAPY CHALLENGES**

The role of teachers in preventing bullying in schools

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Aim: School bullying is a worrying situation worldwide. Prevention is already a challenge for health and education professionals alike. Teachers are regarded as effective interveners in such programs, contributing in a variety of ways.

Methods: This study examined teachers' views on the most effective ways to respond to school bullying situations. 7 focus groups were organized with teachers of Tirana elementary schools, 5 in the city and 2 in the village. The teachers involved were 80% female and 20% male.

Results: Teaching knowledge about bullying is very important in order to identify such problems and to take appropriate measures and advice. On the other hand, teacher intervention needs the support of school, principals, peers and students. Students are less likely to be involved in episodes of

bullying when they realize that teachers are paying attention to them, especially when the teacher promotes a positive classroom environment and manages behavioral learning issues in a positive way. Parental involvement seems to strengthen the effects, as well as the use of effective practices of bullying prevention. A very important aspect is to increase the awareness among students about the role of each of them in this phenomenon.

Conclusions: School bullying prevention programs must be comprehensive, intensive and sustainable. Teachers play a key role in preventing school bullying by identifying and dealing with bullies in a timely manner. This study highlights the importance of involving teachers in effective interaction between students, teachers and parents. Teachers also need additional knowledge about managing bullying situations.

KEYWORDS **BULLYING** **STUDENTS** **TEACHERS**

Evaluation of knowledge and practices of pregnant women on oral health care

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Introduction: Mouth diseases are considered a big public health problem, because of their high prevalence and incidence in all regions of the world. Oral health problems during pregnancy are diseases that can be managed and controlled successfully. Unfortunately, in our country studies and statistical frequency data measured on these problems are scarce, so integrating public health into primary care is very important.

Purpose of the study: The purpose of this study is to assess the knowledge, practices and perceptions of pregnant women, on oral health.

Methodology: The study is quantitative, descriptive. It was done in Prishtina, at the University Clinical Centre of Kosova, with pregnant women who were treated in the obstetric clinic. The survey started on April 14, 2019 and lasted until June 15, 2019. The number of respondents were (N = 251) pregnant. The mean age of the subjects in the study was 26-30 years. The data collection instrument was a self-administered questionnaire. From the statistical parameters, have been realized percentage, frequency, mean, and correlation. Data analysis was done in SPSS, (Statistical for Social Sciences Version 22).

Results: Pregnant women's knowledge on oral hygiene is presented with (49.8%) lack of prior guidance during perinatal care (36.7%), (59%) claimed that dental treatment during pregnancy was unsafe and had a negative impact on fetal health, (35.9%) of pregnant women were unaware of the possible link between oral health and pregnancy, and (49.2%) were never advised by medical staff.

Conclusion: Perinatal care monitors in primary care centers rarely give advice about the importance of oral hygiene and its impact on the health of women and fetuses.

Recommendation: To improve the quality of primary health care, the importance of oral health should be incorporated into the perinatal care program, and the role of midwives in providing oral health advice should be at the center. Increase the cooperation of health professionals and engage in the process of interacting with the Institute of Public Health when developing Primary Health Care Plans.

KEYWORDS ATTITUDES KNOWLEDGE NATIONAL PUBLIC HEALTH INSTITUTE ORAL HEALTH PREGNANCY
PRIMARY HEALTH CARE

Application of the Pre and Posttest in a Training of Trainers Activity: Implementation of the Universal Treatment Curriculum for Substance Use Disorders

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Aim: On February 2020, Medical University of Tirana in collaboration with University of California, San Diego, USA organized a 5 day Training of Trainers on Universal Treatment Curriculum on Substance Use Disorder for Addiction Professionals. 25 participants from academic and treatment institutions were invited to participate at the UTC ToT. During the training, participants were asked to fill in the pre and posttest on 4 main domains: 1. Physiology and Pharmacology of SUD, 2. Case management and Continuity of Care, 3. Co-occurring disorders: Mental health and Substance Use Disorders, 4. Basic Counseling Skills. We will present the results of the pre and posttest questionnaires as a mean to understand participants' ability to retain the information learned during the training period. Participants had different professional background, toxicology and addiction medical doctors, nurse and psychologists.

Methods: The assessment consisted of 2 identical multi choice tests with 15 questions each for each of the training domain on SUD, in total 8 tests. Participants filled in the pretest before the presentation of the training domain and after. In total 23 participants out of 25 completed the pre and posttests. The average of the improvement rate from the pre and posttest was extracted.

Results: 19(82%) participants out of 23 showed an improvement in their answers for UTC 1 post test. The

average number of correct answers for UTC1 posttest is 11.5 compared to 8.8 for UTC1 pretest. 4 (17.3%) participants had the same number of correct answers for both pre and post test of UTC 1 with an average of 8.7 correct answers. For UTC3 post test results, 14 (63.6%) participants out of 22 showed an improvement of overall correct answers with an average number of 11.9 which is 3.2 questions more compared to the average number of correct answers from the pre test results. 2 (9%) had the same number of correct answers for both pre and post test (11.4;10). On the other hand 5 (22.7%) participants showed a deterioration of correct answers from the post test (10) compared to the pretest (11.4). The same pattern of correct answers is observed at the results for URC4. 7 (31.8%) participants out of 22 showed improvement of overall correct answers from the post test with an average of 9.4 answers correct compared to the pre test (8.5). 5 (22.7 %) participants had the same overall correct number with an average of 5.3 and 9(45.4%) participants showed a deterioration of -2.6 average correct answers from the post test (6) compared to the pretest (8.6).

Conclusion: The training was rated as useful from the participants and they felt that the topics presented were related to their work. 90% of them would recommend the training to their colleagues. The redoing of the pre and posttest is useful in understanding the participants' abilities to retain the information gained in long period of time.

KEYWORDS HEALTH PROFESSIONALS PRE AND POSTTEST SUBSTANCE USE DISORDERS TRAINING

Health during the menopause, its control and preventive strategies

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Aim: Menopause is an important period in a woman's life, as she passes from reproductive to non-productive period, and during this transition is characterized by a decrease in estrogen levels, various symptoms may appear.

Methods: This is a cross-sectional population based study conducted during 2016. The study included 1040 women aged 45-64 in menopause, resident in Tirana districts in urban and rural area. Obstetric-gynecological, sexual health, current treatment, family history, personal behaviors, menopausal symptoms and hormonal therapy were evaluated.

Results: The mean age of women was 54.6 (\pm 4.81) years old, ranging from 45 to 64 years. The mean age of menopause was 48.1 \pm 4.2 years. Roughly 14.8% of women had an early menopause, while in most of them (85.2%) it was in time. Low and moderate rates of women's medical examinations were found. Most women (64.3%) self-examined

the chest, while the pap test performed about half of the women (51.9%), compared to 48.1% who did not perform the pap test. Overall, symptoms appeared in 833 or 80% of women. The most common symptoms were musculoskeletal pain (80.1%), hot flashes (77.9%), common fatigue (77.3%), headache (71.9%), sleep disturbances (67.9%), sweating (62.3%), frequent heartbeat (59.9%), skin (57.3%), nervous/depressive ((57.1%), weight gain (55.3%), meteorism (56.3%), poor concentration and memory (56.1%), frequent urination (49.1%), dry vagina (41.3%), etc. Significant and independent predictors of early menopause were: age, first menarche's age, hysterectomy, use of the pill and smoking.

Conclusion: Regular medical examinations should be carried out as a precautionary measure and receive medical attention if needed. Promotion and intervention with specific programs on information and timely treatment of health complaints in women.

KEYWORDS ESTROGEN MENOPAUSE SYMPTOMS TREATMENT

Maternal Age and Developmental Dysplasia of the Hip Among Infants

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Introduction: Developmental dysplasia of the hip (DDH) is a common and preventable cause of childhood disability, and forms a large portion of pediatric orthopedic practice. It encompasses a wide spectrum abstract of clinical severity, from mild developmental abnormalities to frank dislocation. The aim of the study was to evaluate the association of stages of DDH with maternal age.

Methods: This is a retrospective study of newborns and infants examined for the diagnosis of DDH in Regional Hospital Centre in Prizren, Kosova during the period 2010-2012. 875 children were found to have abnormal ultrasonographic findings according to Graf classification. Data were collected from the health records of all children. Multinomial logistic regression was used to evaluate the relationship between maternal age and stages of DDH.

Results: 55.2% were females and 44.8% males ($p < 0.01$). The median time from birth to first examination was 46 days (IQR 30 – 92). The majority of children belonged to type Ia, Ib,IIa (73.6%) followed by dysplasia type IIa>60 (2%), IIb (14%), IIIa (2.5%) IIIb (2.6%), IV (5.2%), ($p < 0.01$). The mean age of mother was 27.2 (± 4.7) years with a range 16 to 42 years. There was a significant association between maternal age >30 years with type IV (OR=30.4 95%CI 1.06 – 15.2 $p=0.01$), type IIIa (OR=1.91 95%CI 1.3 – 11.4 $p=0.02$) and IIIb (OR=1.36 95%CI 1.2 – 8.6 $p=0.03$).

Conclusion: Maternal age has been identified as a risk factor for DDH in many studies. Our study showed that increased maternal age is associated with advanced stages of DDH.

KEYWORDS DEVELOPMENTAL DYSPLASIA HIP INFANT MATERNAL AGE

Application of the iFightDepression tool in a Community Mental Health Center in Shkodra

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The “iFightDepression” instrument was welcomed at the Mental Health Center in Shkodra as a new opportunity to assist all our service users with mild to moderate depressive disorder, as well as for anxiety disorders. The CMHC encountered a number of obstacles related to the implementation of this innovative intervention for many reasons, starting with the physical conditions to perform work (lack of space, lack of sufficient tools to best practice the platform) and the organization of work to include as many cases as possible. In addition, many users, although familiar with the “iFightDepression” platform, were not interested to

treat their depressive symptoms through an online platform. Other cases, patients did not have the physical conditions in their apartment or could not self-administer and use the platform by themselves without guidance. If we are to talk about the near future for the implementation of this platform to be widely used, the work needs to be reorganized, with more support, more activities in relation to the promotion of the platform to family doctors and community in general, creating better physical conditions for an optimal application of the platform at the CMHC premises.

Youth and road accidents

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Aim: Road accidents remain one of the main cause of deaths among young people. Drivers between 18 to 25 years of age are more likely to cause road accidents than adults. Some factors related to a risk behavior for road accidents are the following:

Biological and social changes happening among people between 15 to 25 years old. Lack of awareness and experience on safe road driving. An increase of social activities among adolescents and the fact that they are being exposed to risky behaviors such as alcohol and drug consumption, peer pressure, the use of mobile phones while driving. Another risk factor for road accidents could be the use of old and small automobiles due to the fact that they are more affordable economically and practical to use but on the other hand these vehicles have a less probability to endure road accidents and also they are not equipped with technological safety devices compared to the new vehicles. Also, the use of safety belts and road safety clothes is low among youth compared to adults.

Methodology: The material presented is based on observation methodology, annual reports on road safety under the chapter on youth road accidents.

Results: A number of road security measures have been adopted in order to reduce the risks for road accidents caused by young drivers. These recommendations are based on evidence:

- A better implementation of the speed limits, norms/limits of alcohol intake and the use of safety belt.
- Training and continuing education on road risk perception their extension as a precaution measure for prevention of road accidents.
- Adoption of a more rigid driving licensing procedure that will encourage young potential drivers to practice more in order to apply safety road instructions.
- Encouraging young drivers to use a more safe vehicles and the new helping technology

Conclusion: The young drivers must know and apply secure road regulations or at least some of them. They also have to take into account basic driving instructions.

KEYWORDS ACCIDENTS ROAD SECURITY YOUNG DRIVERS

HIV/AIDS in Albania: A timeline and history

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At the beginning of world HIV epidemic, WHO advised the Ministry of Health to assess the HIV related situation in the country, and to set up the necessary structures to deal with potential epidemic. In March 1993, a team of specialists was established to continuously monitor the epidemiological situation HIV infection. In 1987, the National Committee and the National Program for the Prevention and Control of HIV/AIDS in Albania were established. The diagnosis of HIV infection started in 1988 with the establishment of the Laboratory at the Institute of Hygiene and Epidemiology (IHE), and a sero-epidemiological study was conducted for persons considered at risk at that time. The same year, the Infectious Diseases Service was designated as the country's Reference Center for the follow-up and treatment of HIV infected persons.

In 1992, was established the HIV screening lab at the national blood transfusion center, and the next year (1993) started HIV screening of blood supply in all blood banks in Albania, using rapid anti-HIV-1/2 tests.

In 2000, the parliament approved the Law on 'Prevention and control HIV/AIDS in the Republic of Albania', and in 2003 was developed the first

National Strategy for Prevention and Control of HIV/AIDS in Albania. These documents considered HIV/AIDS prevention and control, treatment and care to be a multidimensional problem involving health, social, cultural, and economic issues.

In 2004, the ARV treatment is offered to the patients diagnosed with HIV infection. In 2016 NAT (Nucleic Acid Test) blood testing for HIV, HBV, and HCV was introduced, contributing to increase blood safety.

Evolution of HIV testing

The first HIV diagnostic tests (rapid tests in blood banks, and ELISA in laboratories) identified IgG antibodies for both types of HIV-1/2 virus. In 2000, 4-th generation ELISA tests (HIV1/2 Ag/Ab) were introduced, which identify IgM and IgG antibodies for virus types, and p24 antigen for HIV-1 type as well. These combined tests with high sensitivity and make possible an early diagnosis, within two weeks after the infection with the HIV virus. The confirmation test used in Albania is Western Blot. All HIV-diagnosed cases in Albania are of type 1 HIV, and few cases are diagnosed with HIV1 / HIV2 co-infection.

KEYWORDS ALBANIA DIAGNOSTIC TESTS HISTORY HIV/AIDS

Impact of children's mental health problems on their parents

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Aim: Childhood mental health problems are a challenging issue for the whole society, but especially for the child's family and parents. Diagnosing a child with a mental health problem means, in many cases, new and unknown challenges for parents.

Methods: This is a qualitative study that aims to understand the impact on parents' lives of diagnosing children with a mental health problem. It was based on in-depth interviews, with 17 parents who had children diagnosed with various mental health problems. Participants were 10 females and 7 males, heterogeneous in educational level, socioeconomic status, etc.

Results: Participants report that diagnosing a child with a mental health problem has been a very stressful event for them. For many of them it is

experienced at the level of trauma and / or as one of the most serious events in their lives. Participants also report that this situation generates ongoing stress for them as individuals, but in turn reflects on many situations, relationships and contexts of their lives.

Conclusions: Diagnosing a child with mental health problems has a significant impact on the lives of parents and affects many aspects of their individual, family and social life. Based on the data and conclusions of this study, it is recommended that mental health service providers and other involved providers emphasize the importance of preventive and treatment interventions with parents who have children diagnosed with mental health problems, due to the stress and psychological problems encountered by these parents for this reason.

KEYWORDS CHILDREN MENTAL HEALTH PARENTS

Strengthening health promotion and education in primary health care in Kosovo

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Introduction: Health promotion and education (HPE) has a long tradition in Kosovo that has improved many of the indicators such as increasing life expectancy, maintaining high immunization rates, declining infant and perinatal mortality, keeping low HIV/AIDS prevalence, etc. The rapid development of HPE is especially explicit since 1999 when in cooperation with international experts the network of Health Education Commissions (HEC) was established and many activities were carried out such as awareness campaigns, marking of health days, trainings, standards and health educational materials (recently produced for COVID19), researches, conferences and professional meetings, and managed to be framed through the drafting of an Action Plan for HPE in Kosovo.

Aim: To introduce the model of the HEC network and the interconnection of all levels of health care with special emphasis on the integration of Primary Health Care (PHC) as well as the presentation of specific objectives of the HPE Action Plan in Kosovo.

Material and methods: Descriptive presentation of cohort of interventions in the organization of the model of HPE in Kosovo from central and regional to local level.

Results: HECs at national level based in NIPHK and 7 HECs at regional level have been operationalized, and with the help of international expertise through the EUTAIX instrument, local HECs were established at the level of Main Family Medicine Centers (MFMCs) as well as the reporting mechanism was developed within the framework of the Kosovo Health Sector Strategy 2017-2021. The HPE activities are framed and approved in the HPE Action Plan with specific objectives: strengthening cross-sectoral cooperation; community involvement in health care; training of health and non-health personnel; health education for patients and family members; drafting and distribution of health promotion and education materials as well as cooperation with the media.

Conclusion and recommendations: There is a need for close cross-sectoral cooperation with stakeholders for population health and activation of various mechanisms at central, regional and local level, both institutional and civil society.

We recommend the establishment of joint professional cross-country working groups in order to design action plans for the HPE.

KEYWORDS NIPHK HEALTH PROMOTION AND EDUCATION PHC KOSOVO

SESSION 3

National screening programs

MODERATORS: ALBAN YLLI | ULRICH LAASER

A cervical screening program integrated into primary health care: Access and barriers in all levels of health system

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Aim: In 2019 Albania has started a national screening program which uses as primary screening examination the high risk Human Papilloma Virus testing. It targets women 40-50 years old with the goal is to provide within five years, all women in this age group, high risk HPV screening tests, as part of the routine examinations done at primary health care centers.

Methods: Each health center physician refers women who have come out positive in primary screening test, to perform a diagnostic colposcopy to a qualified gynecologist and, when necessary, cytology or biopsy. The program allows for the diagnosis of pre-cancerous stages, their treatment and prevention of cervical cancer. The evaluation study that took place during October-November 2019 aimed to identify the performance of the program, barriers and satisfaction of women

Results: The program has been used comparatively more by women living in rural areas (58%). The majority of women found the vaginal sampling procedure very simple (60%) and not at all painful

(72%). 96% of women received their results within the program promise of two months. At the time of the survey, around 90% of HPV-positive women either had gone for follow up visit or were planning to go as soon as possible. More than one in three women who have performed colposcopy, have chosen private healthcare for that. Additionally, 8% have gone abroad for the follow up examination. Women with university education were more inclined to go for the follow up visit to a private facility and especially abroad. 87% of positive women reported substantial worries about the positive result. Around 9 in 10 of women rated the overall service at PHC, as well as at specialized care 'good' or 'very good'.

Conclusion: Results from the first evaluation show good acceptance from women of the new program. There are still 10% of women who although resulted positive in screening test are reluctant to go for follow up examination. Additionally, a large proportion of women resulting positive in screening test chose private clinics for follow up examination. Both issues should be addressed by health system.

KEYWORDS **CERVICAL CANCER** **HPV** **PRIMARY HEALTH CARE**

“May Measurement Month” campaigns in Albania

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May Measurement Month (MMM) is a global awareness campaign which aims to raise awareness about hypertension and to create evidence to improve blood pressure screening around the world.

Launched in May 2017, MMM put the spotlight on increasing access to blood pressure screening as potentially the most effective way to reduce hypertension's adverse toll on health. Albania has participated in this global campaign since 2017 (covering the whole of May) and the number of Albanian participants has been increasing from 1015 participants in 2017, in 14665 participants in 2019.

All MMM campaigns (2017-2019) were supported by the “Health for All Project (HAP)” in Albania, financed by the Swiss Agency for Development and Cooperation (SDC). Additionally, Institute of Public Health and Faculty of Medicine in Tirana provided

logistical support for the training sessions, as well as the availability of students as volunteers.

Participants who measured the blood pressure were recruited through different messages disseminated by social media (Facebook), TV talk-shows, and by strong advocacy exerted by the health promotion specialists at a community level in all screening sites. All messengers emphasized to the general public the importance of blood pressure screening and the unique opportunity to participate in the MMM survey.

Notwithstanding potential limitations, policymakers and decision-makers in Albania and elsewhere, among other sources of information, should also rely on the MMM screening campaigns which have several advantages and a great potential for prevention and control of hypertension in the general population.

KEYWORDS ALBANIA CAMPAIGN HYPERTENSION MAY MEASUREMENT MONTH

Epidemiological analysis of extra pulmonary Tuberculosis in Albania 2011-2017

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Background: Extra pulmonary tuberculosis is a therapeutic challenge. This is a cross-sectional retrospective review of the epidemiology of extra pulmonary tuberculosis from 2011 to 2017. Under diagnosis and over diagnosis of extra pulmonary is often reported.

Methods: We used data from national tuberculosis program and included all cases of tuberculosis diagnosed in the Albania from 2011 to 2017. Information on age, sex, year of diagnosis, anatomic location of the site of disease, was retrieved from data base.

Results: In Albania during 2011-2017, 925 cases of extra pulmonary were reported. Males were 581 (63%) and females 344 (37%). the number of cases diagnosed by year is as follows: 170 (38.2%) in 2011, 129 (30%) in 2012, 108 (25.7%) in 2013, 141 (29.7%) in 2014, 147 (36%) in 2015, 117 (28.2%) in 2016 and 113 (27.2%) in 2017.

Sputum smears examination, x-ray examination, culture examination and tissue biopsy were carried out in 58 %, 42.3%, 18% and 15 % of patients respectively for extra pulmonary diagnosis. The most affected group age was < 65 years (23%), pleural effusion (35%) and lymph node (15.7%) were most common types of extra pulmonary patients live in urban areas (60%) rather than rural (40%). the mean age of extra pulmonary patients is 44.5 and pulmonary patients is 41.2. incidence of extra pulmonary has decreased from 5.5/100.000 in 2010 to 5.1/100000 in 2017.

Conclusions: Extra pulmonary during 2011-2017 shows a slight decrease in incidence, but the rates is still very high. Diagnosis of extra pulmonary has been made based of guidelines, however long delay has been reported in most cases before the final diagnosis. Microbiological proof is the key to diagnosis and treatment, and tissue biopsy that should be required regularly.

KEYWORDS ALBANIA EXAMINATIONS EXTRA PULMONARY TUBERCULOSIS

The Swiss Agency for Development and Cooperation (SDC) project “Shkollat për Shëndetin” implemented by Save the Children

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“Shkollat për Shëndetin” is a Swiss Agency for Development and Cooperation (SDC) project implemented by Save the Children. The overarching goal of the project is to reduce exposure to the major risk factors for non-communicable diseases (NCDs) in the Albanian population in general, but with a particular focus on schoolchildren.

This project is intended to promote positive behavioural changes among all primary schoolchildren (aged 6-15 years) in Albania in order for them, their respective families and communities at large to engage in healthy lifestyle practices including healthy nutritional practices, physical activity, no use of smoking, alcohol or drugs, as well as promotion of other healthy behaviours.

This nationwide project consists of a 1-year Inception Phase (March 2020 – February 2021), followed by a 4-year Main Phase (March 2021 – February 2025). Key national partners of this important project include a wide range of sectors and related institutions at central level, as well as regional and local (municipality) level.

At a national level, the main stakeholders from the health sector consist of the Ministry of Health and

Social Protection, the General Directorate of Health Care Service Operator and the Institute of Public Health. From the education sector, the main actors at a national level include the Ministry of Education, Youth and Sport with its related General Directorate for Pre-University Education, and the Agency of Pre-University Quality Assurance. From the food and nutrition sector, the main stakeholders at a national level consist of the Ministry of Agriculture and Rural Development, the National Food Authority, and the Institute of Food Safety and Veterinary Medicine.

At a regional and local level, the main actors consist of the Regional Directorates of the Health Care Service Operator and their related Local Health Care Units (health sector); the Regional Directorates for Pre-University education and the related Local Education Offices (education sector); as well as local government authorities (including municipalities and their related administrative local units). In all cases though, schools are at the very heart of this exciting project including children, teachers, other supporting staff, school authorities, parents/caregivers of the children, as well as communities at large.

KEYWORDS HEALTH BEHAVIOURS LIFESTYLE NON-COMMUNICABLE DISEASES SCHOOLCHILDREN SHKOLLAT PËR SHËNDE TIN

Evaluation of the self-sampling for cervical cancer screening in Albania

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Aim: Vaginal cell self-sampling can improve screening coverage to increase participations. Information on common reasons for low screening coverage and preferences for future screening are essential to reduce cervical cancer incidence. We aimed to evaluate the knowledge about human papillomavirus (HPV) and screening cervical cancer of Albanian women.

Methods: We gathered information from 200 women that resulted HPV positive by screening, using one structured questionnaires. In Survey, we collected information about knowledge, the acceptance and confidence towards vaginal HPV self-sampling, and satisfaction about it, compared data urban rural, and difference self sample collection with sampling collected by physician or nurse.

Results: The 80% of Albanian women are aware about screening cervical cancer and the Albanian Cervical Cancer Program offered the first possibility to screen for HPV infection for free. Both physician and the nurse of the health center where equally

involved in inviting and counseling women for screening. 33% in the sample reported to have asked the physician to help them with it. About 67% of women found self-sampling collection easier to perform compared to 33% physician sampling, where 63% of them were in rural area (The chi-square statistic is 5.6281. The p-value is .017. Significant at $p < .05$. However, in urban areas women preferred self-sampling. The overall rating of the service at primary health care centre, by women who have used it, is 'good' or 'very good' at 81%. Among the women who decided to take the sample themselves, the majority, or 54% of them, used the health centre toilet room for the procedure. The majority of women found the vaginal sampling procedure very simple (60%) and not at all painful (72%).

Conclusions: There was greater acceptance of the vaginal HPV self-sampling in all areas, with higher participation of women kept greater confidence in the screening performed by HPV self-sampling improved coverage rate in Albania.

KEYWORDS ALBANIA CERVICAL CANCER HPV SCREENING

National Diabetes Register: Trends in incidence and prevalence of diabetes in Albania, during the period 2014-2018

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Aim: Diabetes is a major public health problem worldwide. In 2019 it was established the national diabetes register based in primary health care settings. Our aim was to study the epidemiology of diabetes in Albania, using data from the newly established diabetes register, in order to improve its prevention, control and treatment modalities.

Methods: Incidence data were obtained from the national diabetes registry based on family physicians and pediatricians at the primary health care service in Albania. New and existing diabetes cases were recorded, since 2014. We calculated the incidence and prevalence of diabetes, as well as diabetes distribution by region, sex and age group.

Results: In 2018, Elbasani and Durrësi regions had the highest registered prevalence of diabetes (349 and 307.7 per 10.000 inhabitants). Incidence

of diabetes in Albania has increased from 2014 to 2018 (23.2 to 26.3 per 10.000 inhabitants respectively). Gjirokastra was the region with the highest incidence and Kukësi region had the lowest incidence during these years. From 2014 to 2016 the incidence of diabetes was higher among females; meanwhile in 2017 and 2018 the incidence of diabetes was higher among males. Among persons aged 30-69, the incidence of diabetes increased from 2014 to 2018 (35.8 to 40.7 per 10.000 respectively). During 2014-2018 the incidence of diabetes increased with age, and was the highest for 70+ age-groups.

Conclusion: The diabetes registry is providing important novel information about the epidemiology of diabetes and will help making right decisions in health policy towards diabetes control and prevention.

KEYWORDS **DIABETES REGISTER** **INCIDENCE OF DIABETES** **PREVALENCE OF DIABETES**

Evaluation of knowledge of women 15-49 years for cancer screening test: Findings from the ADHS study

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Background: Breast and cervical cancer are among the leading causes of cancer death in women worldwide. Screening test and early diagnosis for cancer are some of the best tools to prevent cancer morbidity and mortality. Mammography is the most widely used screening modality for the detection of breast cancer and Pap test screening for early diagnosis of cervical cancer. The study aims to evaluate the level of knowledge of women about cancer screening test.

Methodology: In 2017/18 the second round of ADHS (Albania Demographic Health Study) was carried out in Albania. ADHS is a nationally representative sample survey designed to provide information on population and health issues in Albania. A comparison of the result from ADHS 2008-09 and 2017-18 was conducted about knowledge of women 15-49 years on cancer screening tests.

Results: Between two surveys 2008-09 and 2017-18, knowledge about mammography test in women

of urban areas was increased from 84.5% to 93% and from 68% to 87% in rural areas. Also knowledge about Pap-test between two surveys was increased from 67% to 84% in urban areas and from 33.4% to 66% in rural areas. In both surveys knowledge about cancer screening test was strongly associated with education and wealth of women. The more educated and wealthy the women were, the more knowledge they had about screening tests for breast cancer and cervical cancer.

Conclusion: National awareness campaigns conducted by Institute of Public Health each year for breast cancer and cervical cancer are an effective way to make women aware of how to prevent the development of these cancers. However, more needs to be done to increase the number of women enrolled in screening programs in order to prevent their premature death from these cancers.

KEYWORDS BREAST CANCER CERVICAL CANCER KNOWLEDGE SCREENING PROGRAMMES WOMEN

Thinking forward: Effective management of equality, diversity and inclusion challenges for sustainable healthcare organizations

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Aim: Equality, diversity and inclusion challenges in health workforce gained impetus on the grounds of dramatically changed demographics, but mainly from the need to ensure that the best talents from all backgrounds contribute to the improvement of population's health and the performance of healthcare organizations. Recognizing the persistence of EDI challenges in health workforce at all levels, the study aims at exploring the main steps of a roadmap for effective management of EDI challenges towards achieving sustainable change in healthcare organizations.

Methods: The theoretical framework of organizational change underpinned by transformational leadership theory was adopted. A scoping review was applied to assess the nature and extent of research evidence. Thematic analysis was used to code the key informants, whereas qualitative analysis was followed to critically assess the themes, provide deeper understanding of contextual influences and build theory for improvement.

Results: Preliminary results identified seven critical steps for developing an effective roadmap against the EDI challenges in healthcare organizations: i) prioritize EDI in organization's strategic management; ii) secure the collaboration and commitment of the entire leadership team, especially the senior; iii) develop a customized EDI plan and commit publicly; iv) communicate clearly, transparently and in any possible way organization's commitment to EDI plan; v) collect disaggregated data and report regularly on progress; vi) mandatory training of current and future workforce; vii) create an EDI compliant pipeline for recruitment and promotion of health workforce.

Conclusion: The evidence based systematic development and implementation of an EDI roadmap may underpin healthcare organizations to develop a forward-thinking organizational culture, undergo a significant organizational shift and reap the full potential of meaningful and sustainable change.

KEYWORDS DIVERSITY EQUALITY HEALTHCARE ORGANIZATIONS INCLUSION

Abortion indicators in Albania for the year 2018

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Aim: Since 2007, the Institute of Public Health (IPH) has established abortion surveillance in order to document the number and characteristics of the women obtaining abortions. IPH collects data on abortion based on the individual abortion form. Our objective was to analyze abortion indicators for the year 2018 in order to present a detailed picture of the current situation in Albania.

Methods: Updated national information on the incidence of abortion was received quarterly by public and private sector providers. Abortion rate (abortions per 1,000 women aged 15-49) and abortion ratio (abortions per 1,000 live births) were calculated using demographic and natality data from National Institute of Statistics.

Results: During the year 2018, a total of 5532 abortions were reported to the IPH. The abortion

rate was 8.0 abortions per 1,000 women aged 15-49, and the abortion ratio was 191.2 abortions per 1,000 live births. Compare to previous year, an increase with 4.8% in the total number it is observed, mainly due to the beginning of reporting from private sector. Women aged 20-34 years accounted for the majority of abortions (66.4%). Regarding place of residence, the percent of abortions (compare to the total number) for women living in urban areas was 67.9%. The frequency of spontaneous abortions was 3.7 times higher than induced abortions.

Conclusions: Our findings indicate that the national abortion ratio and rate has declined over years. Ongoing abortion surveillance system is important to improve statistics gathering and support family planning programs.

KEYWORDS ABORTIONS ABORTION RATE ABORTION RATIO ABORTION SURVEILLANCE

Implementation of the National Diabetes Register in Primary Health Care Setting

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Aim: Diabetes is one of the major risk factors for cardio-vascular diseases. Implementation of the National Diabetes Register (NDR) at the primary health care centers was a necessity in order to evaluate the burden and epidemiology of the disease, treatment planning and interventions, prevention and control of diabetes in our country.

Methods: Implementation of NDR was based on Decision of the Council of Ministers No. 327 in 2014: "On Determining the Format and Methods for Data Collection and Reporting by Public and Private Health Services". Since 2014, every new case diagnosed and registered at the primary health care physicians (PHCP) was reported through diabetes individual reporting form. Diabetes form contains socio-demographic, laboratory, treatment data, making it possible to assess the major trends for incidence, prevalence and control of disease. Specialists of all local health care units (LHCU)

collect and report diabetes form to the Institute of Public Health, responsible for the organization, management, monitoring, data analyses and compiling reports of NDR.

Results: Several meetings and trainings were held with the help of Health Care Services Operator and LHCU on data collection and timely reporting diabetes new cases. In the first phase (January 2014 - December 2018), data based on the year of diagnosis and patient ID were collected in excel tables extracted by the PHCP's registers. Starting from January 2020, all new cases of diabetes are reported by the individual form.

Conclusions: NDR will provide important information about the disease and will contribute making right decisions in health policy in terms of preventing and controlling diabetes in our country.

KEYWORDS LOCAL HEALTH CARE UNIT NATIONAL DIABETES REGISTER PRIMARY HEALTH CARE CENTERS

Effectiveness of a Mobile Mammography Program: Analysis of Outcomes of 5 years

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Mobile mammography units are increasingly utilized to address barriers to mammography screening. The two mobile mammography, are logistically driven by IPH since 2015. Outreach throughout the Albania, the ability of these programs is to reach no screened populations, address disparities, and report on outcomes of screening performance. We conducted a retrospective review of screening and follow up data obtained for women screened on the mobile mammography unit, during the period 2015 to 2019 as part of the prevention program in Albania. In total, 23476 mammograms and/or clinical breast exams were conducted on 5 years with a mean age of 50.45 years; SD=10.57 with average 4600 per year. Women had either never been

screened or had not had a screening in 5 years. The radiologist reviewing the studies scored each mammogram using the BIRAD system of coding 0–6. BIRAD. 0 scores were considered incomplete and required additional follow up. BIRAD Scores of 0–2 were considered normal, benign, or probably benign. Mammograms coded as BIRADS 3-6 were considered suspicious or malignant and required immediate referral to a diagnostic mammogram or specialty physician. More than 6% a suspicious mammogram finding (>BIRADS 3,4,5,6), 1% breast cancers were detected. The mobile outreach initiative successfully engaged many women who had not had a recent mammogram. Financial barrier and lack of access mammogram, were variables associated with none screened women.

KEYWORDS BREAST CANCER DISPARITIES MOBILE MAMMOGRAPHY OUTCOMES UNDERSERVED POPULATIONS

Trends of tobacco use in Albanian population during the last decade

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Aim: Tobacco use is the most common preventable cause of premature loss of health worldwide, accounting for almost 8 million deaths from a tobacco-related disease in 2017. The number of annual deaths are expected to increase even after tobacco usage starts to decline. Tobacco can also be deadly for non-smokers. The aim of this analysis is to compare the trend of tobacco usage according to the last surveys of Albanian Demographic Health Survey conducted in last decade (2008-09 and 2017-18).

Methods: The last two ADHS surveys were conducted on a national representative sample, aged 15 to 49 years old. The data used in this study referred to cigarette smoking during their life and current smoking.

Results: Overall, between 2008-09 and 2017-18, ADHS cigarette smoking decreased from 43% to 35% among men aged 15-49, but it remained

almost stable among women of the same age (4% and 5%, respectively). Among men, despite their educational level or place of living (urban vs. rural), cigarette smoking has decreased between 2008-09 and 2017-18 ADHS. Among women with a university education, cigarette smoking has decreased from 15% to 8%, otherwise for women with a low level of education, cigarette smoking has increased from 7% to 16%. For women in urban and rural areas, cigarette smoking has remained almost stable (8% to 7% and 1% to 2% respectively) in both surveys.

Conclusions: Despite the optimistic results from our findings, continuing education activities as well as promoting positive attitudes towards smoking cessation can make sustainable these decreasing trends in tobacco use in the Albanian population.

KEYWORDS ADHS ALBANIAN POPULATION TOBACCO USE SMOKING

Analyzes of the most frequent conditions identified at primary health care by the National Medical Check-Up Program

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Aim: In 2015, Albania launched a new program in primary health care called the National Medical Check-Up. The main goals of the program were early detection of non-communicable diseases, risk factors, health education and improvement of basic health services, increasing capacities in primary health care and access to services for the whole population. Our aim was to provide the readers with various findings generated in the framework of this program.

Methodology: All citizens aged 40-65 were invited to perform free basic health screening at the health center. Since October 2016 the program was expanded to 35-70 age-groups. National Medical Check-Up program provides data on participation, prevalence of selected diseases and selected risk factors in the Albanian population, as well as their distribution by region, sex and age group.

Results: Until February 2018, 954 667 visits were performed. More than half of participants (61%) were females. Among screened participants, the prevalence of hypertension, prediabetes and diabetes was approximately 36.5%, 15.4% and 9.1%, respectively. The prevalence of high LDL-cholesterol, overweight and obesity was 25.6%, 42% and 33%, respectively. About 0.75% of all participants had a positive fecal occult blood test.

Conclusion: The analysis of National Medical Check-Up data demonstrated that the prevalence of major risk factors for non-communicable diseases in the Albanian population aged 35-70 years is considerably high, implying that the potential for prevention is also high. This information contributes for developing evidence-based policies and for rational decision-making in the health sector.

KEYWORDS CHECK-UP PROGRAM PRIMARY HEALTH CARE SCREENING

Prevalence of Non-Communicable Diseases lifestyle associated risk factors for the Albanian population. Historic ADHS (2008-09 and 2017-18) data

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Aim: Non-communicable diseases (NCD) are a major concern in Albania, reflecting a recent increasing trend and accounting for about 90% of deaths. Lifestyle factors account for more than 70% of the total burden of diseases. Our aim was to compare the prevalence of lifestyle associated risk factors according to the recent Albanian population based surveys.

Methods: A comparison of the results from Albanian demographic and health surveys (ADHS 2008-09 and 2017-18) was conducted. Most recent estimates on risk factors from World Health Organization were reviewed.

Results: Between 2008-09 and 2017-18, cigarette smoking decreased from 43% to 35% among men age 15-49, but remained almost stable among women of the same age (4% and 5% respectively). The prevalence of harmful alcohol consumption (5

or more days a week) declined for both genders, with a substantial decrease in men aged 15-49 (16.3% and 6.4% respectively). The prevalence of overweight declined for both genders, while the prevalence of obesity increased (from 9.7% to 16.4% among females aged 15-49 and from 8.5% to 13.4% among males aged 15-49, respectively). Based on ADHS 2017-18, 9.3% of women and 13.8% of men age 15-49 did not consume any portion of fruit and vegetables. Physical inactivity was about 68% among adolescents and tended to increase with age, reaching up to 84% for those aged 50-59.

Conclusions: Assessment of risk factors is important for the prevention and control of NCD's. The results highlight the need for lifestyle improvements in the Albanian population, through comprehensive national plans with integrated interventions that encourage healthy eating and an active life.

KEYWORDS LIFESTYLE NON-COMMUNICABLE DISEASES RISK FACTORS

Lifestyle and socio-demographic factors associated with high-risk HPV infection in Albanian women

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Aim: Cervical cancer is common among women worldwide. A multitude of risk factors aggravate the disease. This study was conducted to: (1) determine the prevalence and (2) make a comparative analysis of the socio-demographic and behavioral risk factors of cervical cancer, attitude and practice between rural and urban women of Albania.

Methodology: We evaluated women data that were screened, on the first year screening for cervical cancer in Albania. The data were collected from every woman by a form with all risk factors for cervical cancer and with the results of the Laboratory for High risk HPV.

Results: Total high risk HPV prevalence in this sample was 6.2%. HPV prevalence is significantly higher in urban populations of women (6.9%) compared to rural areas (4.7%), confirming the increasing of risk for infection with a potentially intensification of urbanization in the future in Albania. It is noted that there is a higher probability for women HPV positives to have higher education than HPV negative women. Women positive in high risk HPV screening test, have slight differences

compared to other, HPV negative women, when a range of reproductive life indicators are analyzed. Conversely, average number of abortions is slightly higher among HPV positives, especially when the categories of women who had 2 and more abortions are compared. While partner's circumcision is not associated to the risk of being infected with HPV, smoking seems to be a significant factor increasing the odds for it. There are more than 20% of HPV positive women who have reported to smoke, when the prevalence of smoking among HPV negatives was reported to be only 16%. HPV positive women were more inclined to use the pap-test services in the past with almost 24% of them falling in this category.

Conclusion: These factors may have driven their better utilization of a health service which is mostly opportunistic and associated with substantial out of pocket costs, especially logistic ones. Women of lower socio economic status and those in rural areas, while have been showing lower HPV infection prevalence, were more inclined to use the national systematic screening program, attracted by the lower barriers; easy access and insignificant cost.

KEYWORDS HPV RISK FACTORS OF CERVICAL CANCER SMOKE

One year results on Human Papilloma Virus-based Cervical Cancer Screening Program in Albania

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Primary human papilloma virus (HPV)-testing has been shown to provide a superior detection of women at risk of cervical (pre)cancer compared to cytology-based screening. Many health systems are currently transitioning to HPV-based screening programs.

From February 2019, Albania has started implementing an organized National Cervical Cancer HPV-based screening program with 5-years intervals, offering self-sampling to women aged 40–49. Here we present the results of the first year HPV-based screening program in Albania.

During the year 2019, screening was focused on age groups 44-45 and 48-49. A total of 14.000 women, were invited for HPV testing (HPV-DNA Hybrid Capture 2 - a nucleic acid hybridization assay with signal amplification). Participation was 88.08% (12.772 out of 14.500). From February 2019, HPV-positivity

was 6.13% (768/12.520). HPV-positive women were referred to colposcopy. A percentage of 6.5 (with 7.1% HPV-positivity) of women who participated in the program, fell outside the program target age category. HPV-negative women will be re-invited after five years. Total colposcopy examinations were 13% (100 out of 768). Among those examinations, two carcinomas, one pre-cancer (CIN3) and one CIN2, have been diagnosed.

Implementation studies are needed on the performance of an entire screening program evaluation, from primary screening to triage, treatment, and follow up, and they will assess benefits and harms on the population level.

Establishing a Quality Assurance and Information System, accessible to all actors and structures, is one of the most important challenges for all components of the NCCSP.

KEYWORDS **BASED SCREENING PROGRAMS** **COLPOSCOPY** **HPV**

Estimated burden of non-communicable diseases in Albania in the past three decades

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Aim: The aim of this analysis was to describe the estimated burden of non-communicable diseases (NCDs) in Albania for the period 1990-2017.

Methods: The current analysis is based on the burden of disease estimates reported by the Institute for Health Metrics and Evaluation (<http://www.healthdata.org/>) for the following outcome: Disability-Adjusted Life Years (DALYs), a measure of the overall disease burden combining the number of years lost due to premature death and the number of years lost due to diseases and disabilities.

Results: In 2017, the crude burden of NCDs in Albania was about 22,690 DALYs per 100,000 population. Conversely, at the breakdown of the communist regime in 1990, the crude NCD burden was only 15,686 DALYs per 100,000 population.

Hence, at a crude level, there is an increase of about 45% in the burden of NCDs for the period 1990-2017. The age-standardized burden of NCDs (DALYs per 100,000 population) in Albania in 2017 was higher than in Slovenia, comparable to Croatia, but lower than in most of the former Yugoslavian Republics. Of note, at the end of the communist regime in 1990, the NCD burden in Albania was lower than in all the former Yugoslavian Republics.

Conclusion: At a crude level, the estimated burden of NCDs in Albania exhibits a monotonic increase in the past three decades. There is a clear call for implementation of effective measures and programs aiming at control and prevention of NCDs in Albania, especially in light of tremendous changes in behavioural characteristics of the general population.

KEYWORDS BURDEN OF DISEASE DISABILITY-ADJUSTED LIFE YEARS ESTIMATE
INSTITUTE FOR HEALTH METRICS AND EVALUATION NON-COMMUNICABLE DISEASES

Overall burden of diseases in Albania for the period 1990-2017

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Aim: Our objective was to present the estimated overall burden of diseases in Albania for the period 1990-2017.

Methods: This report is based on the burden of disease estimates provided by the Institute for Health Metrics and Evaluation (IHME: <http://www.healthdata.org/>). Disability-Adjusted Life Years (DALYs) is used as a summary measure of the overall burden of disease in Albania (deaths and disability from all causes).

Results: In 2017, the overall (crude) burden of disease (all ages, all causes) in Albania was about 27,820 DALYs per 100,000 population (32,096 in males vs. 23,503 in females). Instead, in 1990, the overall (crude) burden of disease was 28,593 DALYs per 100,000 population (31,357 in males vs. 25,661 in females). Compared with the other South Eastern European (SEE) countries, the overall age-standardized burden of disease in the Albanian

population in 2017 was considerably higher than in Greece followed by Slovenia and Bosnia-Herzegovina, but lower than in North Macedonia and especially Serbia. Conversely, in 1990, the overall age-standardized burden of disease in Albania was similar to Slovenia.

Conclusion: The estimates provided by the IHME point to an increase in Albanian men but a decrease in Albanian women in the overall (crude) burden of disease for the period 1990-2017. However, in the future, measurement of health status of the Albanian population should be preferably based on the routinely-collected information (administrative data) provided by the national Institute of Statistics (data on mortality), hospital discharges and primary health care records (morbidity data), as well as on the information collected periodically by means of different population-based surveys.

KEYWORDS ALL-CAUSES BURDEN OF DISEASE DISABILITY-ADJUSTED LIFE YEARS ESTIMATE
INSTITUTE FOR HEALTH METRICS AND EVALUATION

Introduction of rotavirus vaccine in Albanian national immunization program

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Aim: Diarrhea is classified among the most common childhood illnesses in developing and developed countries and rotaviruses are frequently reported as the main cause. The universal occurrence of rotavirus infections even in settings with high standards of hygiene testifies on the high transmissibility of this virus.

In Albania, rotavirus has been observed since 1988. Various studies have identified a diversity of rotavirus serotypes circulating in Albania. Furthermore, the country conducted a cost effectiveness study which showed the economical and societal benefits of rotavirus vaccine introduction into the immunization program. These and other criteria led to discussions among decision makers and experts, to prioritize a possible introduction of rotavirus vaccine into the national immunization program.

Hence, rotavirus vaccine was introduced within the national immunization schedule on October

1st, 2019. This vaccine is offered for free (as other vaccines in the national schedule), for every child born from August 1st, 2019. It is an attenuated live oral vaccine, which is given in three doses, at 2, 4 and 6 months of age. This rotavirus vaccine is WHO pre-qualified, safe and effective against 5 serotypes. Also, it can be administrated at the same time frame with other vaccines of our national schedule.

Methodology: Evaluation of national vaccination coverage through the monitoring reporting forms. This is the national coverage from the first 2 doses of rotavirus vaccine.

Results: The national coverage for 1st dose of rotavirus vaccine is 98,6%, while the coverage for the 2nd dose of rotavirus vaccine is 97,6%.

Conclusions: This high preliminary coverage on rotavirus vaccine reveals the well acceptance of parents towards this vaccine.

KEYWORDS ALBANIA NATIONAL COVERAGE ROTAVIRUS VACCINE

Non-Communicable diseases and sustainable development goals progress, achievement and challenges in Albania

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Background: Non communicable diseases (NCDs) reduction is included among Sustainable Development Goals (SDG) adopted by United Nations in 2015, and in the Global Monitoring Framework (GMF) adopted by World Health Assembly in 2013. There is evidence of a significant change in the epidemiological profile of the Albanian population in the past three decades with a remarkable transition towards NCDs. Objective: We examine the burden of NCDs in Albania and progress towards the internationally set goals.

Methods: Indicators used for this work are those proposed by Global Monitoring Framework and adapted by Institute of Public Health (IPH). Selected groups of NCDs included cardiovascular diseases (CVD), cancer, diabetes, and chronic respiratory diseases (CRD). Mortality, morbidity and risk factor prevalence data were systematically collected by IPH, INSTAT, and WHO. Additionally, most recent estimates of crude and age-standardized rates were retrieved from Global Burden of Diseases to assess the distribution and trends over time in the Albanian population, as well as cross-national

comparisons with the neighbouring countries of South Eastern European regions.

Results: In Albania, over 94% of all deaths and about 85% of the overall disease burden are caused by NCDs. Although the crude mortality rate for most NCDs continues to be on increase, age-standardised death rates from CVDs, cancer, chronic respiratory diseases and diabetes are showing a slight decrease trend during the last decade. High systolic blood pressure is the main risk factor with 33.30% of deaths (28.97% - 37.72%) and 16.94% of disability adjusted life years (14.6% - 19.58%) attributed to it.

Conclusions: Demographic change, coupled with changes in life style, tend to increase the burden of NCDs in Albania. The observed recent decrease in age-standardized mortality trends is still small and doesn't guaranty the achievement of SDG goal; reduction by 2030, by one third of premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.

KEYWORDS NON COMMUNICABLE DISEASES MORTALITY RISK FACTORS

A century of mosquito control in Albania: Past, present and future challenges. Its role on malaria eradication

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The beginnings of mosquito control studies in Albania dated 1922 by Dr. Ashta. *Gambusia affinis*, a larvivorous fish, was introduced in 1931 as an effective biological method for mosquito larvae control. During the 1931-1933, the American Rockefeller Foundation supported widely marshes drainage throughout the country. Malaria was hyper endemic in Albania and a real public health problem in the beginning of 19th Century. Full campaign on malaria eradication started in 1947, achieving within twenty years. DDT was widely used in 1946 and in 1957, following the WHO recommendations, a strategic plan for malaria eradication was implemented. The drainage of the marshes, total reclamation of water irrigation and drainage system, as well as door to door campaign for the diagnose of malaria in human were performed. Agricultural, environmental and

economical interventions were multilaterally comprehended in the program. Total malaria control in Albania was achieved in 1967. Further studies on malaria *Anopheles* vectors showed a gained insecticide resistance, except malathion. The increased of malaria imported cases in the recent years, raised awareness of reemerging potential in the country. There was an interruption on mosquito control during the 90's, meanwhile 2014 marked the beginning of the national program on mosquito larval control based in biological agents, conducted yearly to date by the Institute of Public Health. Future challenges on the mosquito control would be focused on nano-tech repellent, extraction of new substances from different plant, their impregnation in textiles and the evaluation process of the efficacy against mosquito bite in the field.

KEYWORDS CONTROL PROGRAM INFECTIOUS DISEASES MOSQUITO

Mosquitoes Control Program in Albania: Results of Entomological Monitoring

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Mosquitoes control program is established in Albania in 2014, and is an integrated prevention and control program, aiming at reducing mosquito's density in urban and coastal areas.

Mosquitoes breeding sites are identified in urban and public spaces, in lagoons, national and public parks, canals, swamps, manholes, basements and septic tanks. Entomological monitoring is carried out every two weeks to check the quality control of the program. Ovitrap (3-10 per site) are used for studying eggs density and the seasonality of the tiger mosquito oviposition, CO₂ traps (3-5 per site) are set up for adult's collection, and dipper (3-5 dipping per station) for larval sampling at sentinel and control station. Mosquitoes' identification is done using "The mosquitoes of Europe". Schaffner F. [CD-ROM].

Results have shown the presence of 4 abundant mosquitoes' genus:

Genus *Aedes* represented mainly by *Aedes albopictus*, a day bite aggressive mosquitoes and important vector of Chikungunya, Zika;

Genus *Culex* represented by the most widespread species *Culex pipiens*, vector of WNV, active mainly from the dusk throughout the night.

Genus *Ochlerotatus* represented by the most aggressive species *Ochlerotatus caspius* and *Oc. detritus*. These species are typical crepuscular, with the activity that vary during the season.

Genus *Anopheles*. *An. scharovi* together with other species part of the *An. maculipennis*.l. complex. is found present in National Park of Butrinti, Orkumi, Sop (Fieri), Divjaka forest, Lalzi Bay, St. Peter and Lezha.

As a conclusion, in total 18 mosquitoes species has been identified during the entomological studies carried out within the period 2014-2019 in urban and coastal areas, belonging to 6 genus *Aedes*, *Ochlerotatus*, *Anopheles*, *Culex*, *Culiseta* and *Uranotenia*.

KEYWORDS CONTROL PROGRAM INFECTIOUS DISEASES MOSQUITO

The detection of β Haemolytic Streptococcus in the oral cavity in the early ages

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Aim: Infection with *Streptococcus pyogenes* based on the Lanfield division is classified as β Haemolytic bacteria. They colonise the respiratory tract and the skin and causes a wide variety of diseases in humans including respiratory infections, dermal infections mediated toxin pathologies, and immunologic mediated pathologies. The study aims was at identification of the carrier subjects of *S. pyogenes* bacterium referring to the clinical and the respective laboratory examinations.

Methods: A randomly selected study was conducted in students of "Aldent University". The age of subject included in our study was 18 until to 21 years old and mean age of the students was 19 ± 1.2 years. Tonsils swab were taken as material from of each student. Cultures in blood agar (5%) were identified through Gram/catalase. All samples were inoculated for 24 hours in the thermostat at temperature 37°C. The chi-squared statistical analysis was applying to evaluate the data.

Results: A total of 101 samples from healthy students were included in this study were the predominant sex was female 66.4% (67 students) compared to male 33.6% (34 students). Thirteen seven (36.6%) students were found to be *Streptococcus pyogenes* carriers and 63.4% are healthy. From *S. pyogenes* carriers 62.2% were female and 37.8 were male. However, *S. pyogenes* carriers it was found to be more common among females (62.2%) than males (37.8%) with no statistically significant difference between them ($\chi^2=1.4$, $P=0.5$). We didn't found statistically significant difference and for tonsils *S. pyogenes* carriage among different age groups.

Conclusions: Based on the results of our study the major part of the subjects don't pay attention to the effective treatment for this bacterium and consequently they go to a more aggravated condition or they do not finish all the antibiotic therefore they remain carriers of this bacterium.

KEYWORDS **STREPTOCOCCUS PYOGENES** **STUDENTS** **TONSILS SWAB**

Unintentional injuries and the SDGs progress in Albania: The way forward

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Background: Injuries and violence are one of the leading causes of death in Albania, after cardiovascular diseases (53.7%) and cancers (16.4%). According to INSTAT (2017), external causes of death accounted for about 4% of all deaths in Albania. The three leading causes of injury deaths in Albania are road traffic accidents, suicide and homicides. The aim of this analysis was to evaluate the SDG progress of Albania in relation to unintentional injuries and deaths.

Methods: This analysis consisted of a comprehensive desk review of all the available evidence and information related to unintentional injuries in Albania. The information collected from all electronic sources and other documents was used for a detailed evaluation of the progress, achievements and challenges faced by Albania for meeting the SDG targets in relation to external causes of death.

Results: In general, there is a moderate decline of the death rates from road traffic accidents over the

years in Albania. According to INSTAT, the mortality rate from road traffic accidents in the Albanian population was 11.4 vs. 6.2 deaths per 100,000 population in 1990 and 2017, respectively. Similarly, the drowning-related death rates' and fire-related death rates' trends have an important decrease over the years. On the other side, the fall-related death rates' trend has a slight increase over the years. According to GHD, the estimated mortality rate from falls in the Albanian population was 1.78 vs. 2.88 deaths per 100,000 population in 1990 and 2017, respectively. There was evidence of a higher falls death rate in males compared with females during past three decades.

Conclusions: Although there is a decrease of mortality rate from unintentional injuries in Albania, they still constitute a major public health concern for the whole society. This decline has not been uniform for all types of injuries and for both genders. Improvement of the public health system is needed to protect against injuries and harm and promote healthy environments in the Albanian population.

KEYWORDS ALBANIA UNINTENTIONAL INJURIES SUSTAINABLE DEVELOPMENT GOALS (SDGS)

Prevalence of selected non-communicable diseases and their associated risk factors in the adult population of Albania

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Aim: Our aim was to assess the prevalence of selected non-communicable diseases (NCDs) and their associated risk factors in the adult population of Albania, a country which traditionally has had a low number of primary health care (PHC) visits. **Methods:** A nationwide PHC-based medical check-up programme, with a focus on prevention, was set up in Albania in 2015 including all citizens aged 35-70 years. The current analysis is based on the data gathered from the check-up programme information system and the registry of diseases at all PHC centres in Albania in 2016.

Results: Of the 329,576 individuals who underwent a medical check-up in 2016, 36% had elevated blood pressure (systolic at 140 mmHg or higher and/or diastolic at 90 mmHg or higher); 21% were suspected of having depression; 15% had blood

glucose levels higher than 5.5 mmol/L and 9% higher than 7.0 mmol/L; and 1% had a positive faecal occult blood test.

Conclusions: Overall, the medical check-up programme in Albania has identified a substantial number of new cases of NCD as well as their associated risk factors in the adult population of both sexes. The early detection of NCDs is expected to contribute to the prevention of complications, premature mortality and their associated costs. However, decision-makers in Albania should regularly revise and introduce appropriate changes to the check-up programme in the future. In particular, the issue of sustainability and long-term resource mobilization is of particular concern and warrants careful consideration.

KEYWORDS ALBANIA CHECK-UP PREVENTION PRIMARY HEALTH CARE

SESSION 4

Public Health and Primary Health Care response and preparedness in emergency situations

MODERATORS: SILVA BINO | DORINA TOÇAJ

The GETPrepaRed Project – an Albanian-German partnership in the field of emergency preparedness

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Background: In 2016, the Robert Koch Institute (RKI) and the Institute of Public Health of Albania (IPH) established a bilateral partnership in the scope of emergency preparedness under the project “GETPrepaRed” (Global Emergency Training and support for Preparedness and Response to Disease Outbreaks).

Aims: GETPrepaRed aims to strengthen capacities and capabilities in the areas of infectious disease surveillance, preparedness, response and crisis management in Albania. These aims go along with supporting the implementation of the International Health Regulations’ core capacities in the country.

Methods: Inside the partnership’s work packages “indicator-based surveillance”, “event-based surveillance”, “risk assessment” and “crisis management”, GETPrepaRed conducted participatory and interactive workshops with participants from national and district levels, which aimed to develop country-specific guidelines and tools. To ensure standardization and adherence to

international principles, GETPrepaRed’s workshops rely on existing frameworks of international organizations (such as WHO and ECDC).

Results: In 2016-2020, IPH and RKI collaboratively and successfully conducted ~15 workshops and trainings within GETPrepaRed. Resulting from these activities, IPH developed new case definitions following European Union directives, national guidelines for rapid risk assessment and SOPs for event-based surveillance in Albania. A weekly epidemiological teleconference fostering horizontal exchange on infectious disease events between epidemiologists in Albania was established through GETPrepaRed and is successfully running since 2017. Furthermore, the project initiated the development of an Albanian public health emergency operation center.

Conclusions: For the last 4 years, GETPrepaRed constituted a fruitful partnership between IPH and RKI. As next steps, implementation trainings of the newly developed structures will be conducted.

KEYWORDS ALBANIA GETPREPARED TRAINING WORKSHOPS

Epidemiological data related to the Measles outbreak during 2019 in Albania

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Aim: In 2019 Albania has started a national screening program which uses as primary screening examination the high risk Human Papilloma Virus testing. It targets women 40-50 years old with the goal is to provide within five years, all women in this age group, high risk HPV screening tests, as part of the routine examinations done at primary health care centers.

Methods: Each health center physician refers women who have come out positive in primary screening test, to perform a diagnostic colposcopy to a qualified gynecologist and, when necessary, cytology or biopsy. The program allows for the diagnosis of pre-cancerous stages, their treatment and prevention of cervical cancer. The evaluation study that took place during October-November 2019 aimed to identify the performance of the program, barriers and satisfaction of women

Results: The program has been used comparatively more by women living in rural areas (58%). The majority of women found the vaginal sampling procedure very simple (60%) and not at all painful

(72%). 96% of women received their results within the program promise of two months. At the time of the survey, around 90% of HPV-positive women either had gone for follow up visit or were planning to go as soon as possible. More than one in three women who have performed colposcopy, have chosen private healthcare for that. Additionally, 8% have gone abroad for the follow up examination. Women with university education were more inclined to go for the follow up visit to a private facility and especially abroad. 87% of positive women reported substantial worries about the positive result. Around 9 in 10 of women rated the overall service at PHC, as well as at specialized care 'good' or 'very good'.

Conclusion: Results from the first evaluation show good acceptance from women of the new program. There are still 10% of women who although resulted positive in screening test are reluctant to go for follow up examination. Additionally, a large proportion of women resulting positive in screening test chose private clinics for follow up examination. Both issues should be addressed by health system.

KEYWORDS EPIDEMIOLOGY INFECTIOUS DISEASES MEASLES OUTBREAK

Syndromic and sentinel surveillance in Primary Health Care and the impact of COVID-19 pandemic

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Aim: To provide an overview of syndromic and sentinel surveillance system in primary health care in Tirana district during pandemic.

Methods: Syndromic surveillance is an early warning that consists of mandatory weekly reporting of infectious syndromes including acute upper and lower acute respiratory infections (ARI). Influenza like illness (ILI) and COVID-19 sentinel surveillance is based in outpatient health centers in Tirana reporting cases with influenza during influenza season, weeks 40-20 from patients that meets the case definitions. The sentinel surveillance combines data from both ARI and ILI cases. Specimens are collected twice per week from suspected patients are accompanied with an individual reporting form including, epidemiological and clinical data.

Results: During the last influenza season 2019-2020 syndromic and sentinel surveillance practices were faced with a challenge in the context of COVID-19 pandemic. There was no activity except on call activity of primary care facilities during the

lock down period. Also, changes in health care organization – emergency services and phone consultations – had an impact on ILI and ARI syndromic surveillance, thus declining the number of patients as compared to previous year. The trend of ARI presented a sharp decline from 10818 to 3182 weekly case, since the mid-March 2020 and still remains at baseline levels, unlike previous years. The ILI surveillance resumed at the beginning of 2020-2021 influenza season and suspected patients are tested for both: influenza and COVID-19. The number of ILI sentinel sites were increased in Tirana and were extended in two other districts Durres and Fier and are trained continuously. A digitalized system is being built within web based surveillance system of infectious diseases (SISI) for both influenza and COVID-19 and link with the database in EPINFO.

Conclusions: The COVID-19 epidemic and the lockdown measures have significantly reduced the reporting rate of infectious syndromes. ILI sentinel surveillance restored and continues its activity during the epidemic period.

KEYWORDS **ARI** **COVID-19** **ILI** **SENTINEL SITE** **SYNDROMIC SURVEILLANCE** **PANDEMIC**

Establishing a web-based digital information system for communicable diseases during COVID-19 pandemic

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Aim: The objective of this paper is to showcase how public health surveillance can be improved by interrelating case based surveillance, laboratory surveillance, syndromic surveillance and event based surveillance into an integrated electronic Infectious Diseases Information System (IDIS).

Methods: Development of IDIS began in December 2016 with the goal to modernize the Albanian surveillance system by developing a user-friendly, comprehensive database for case, contact, and laboratory data and focusing on the improvement of the timeliness indicators of disease detection and responding. The system development is based on expertise of a number of experts including epidemiologist, public health, veterinary, entomology, laboratory, immunologists and information technology engineers. The platform is based on open-source software solutions and currently is available in two languages in Albanian and English but it has the potential to be translated onto more languages.

Results: Features of the current IDIS Application are: (i) integration of information from different surveillance systems indicator, syndromic and event base; (ii) better investigation and management of

outbreaks and reduce data-entry errors (iii) assist the epidemiologists with the generation offline listing and or contact-tracing lists to ensure appropriate follow-up of cases; (iv) integration with the national vaccination registry for retrieving vaccination history and prospectively apply ring vaccinations during outbreak control; (v) automate and simplify the analysis needed for epidemiological reports; (vi) knowledge repository with a qualitative and quantitative cache of epidemiological information and data; and (vii) improve the consistency, communication, and effective use of public health data. In the near future is planned to be developed a one health dashboard which will serve as an integrated surveillance data portal for all involved actors in public health.

Conclusions: IDIS provides a capacity to improve the Albanian disease surveillance system and holds a lot of potential for future integration with veterinary, vector and food safety sector by rapidly collecting and analyzing data on infectious diseases, hosts and vectors. Particular methods which are being developed within IDIS provide an array of instruments to epidemiologists to perform faster and qualitatively data collection, make better decisions and more effectively plan response measures.

KEYWORDS COMMUNICABLE DISEASES COVID-19 DIGITAL INFORMATION SYSTEM PANDEMIC WEB-BASED

Assessment and management of mental health problems during the COVID-19 pandemic

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Context: The impact of the COVID-19 pandemic on mental health is now listed as one of the most difficult to manage public health situations. During a crisis such as the COVID-19 pandemic, it is common for everyone to experience increased levels of distress and anxiety, particularly as a result of social isolation, and this is now one of the most important challenges for the public health response to the pandemic.

Methods: Between April 1 and May 30, 2020, online interviews were carried out in the general population. The interviews contained questions on perceived mental health impact, fear of COVID-19, coping with the disease, depressive symptoms, anxiety, worry, and loneliness. Also, the authors were part of different initiatives of online counseling about mental health issues, offering expertise in different stages and in managing problematic cases.

Results: There are a variety of ways the pandemic has likely affected mental health, particularly

with widespread social isolation resulting from necessary safety measures. There are so many links between social isolation and loneliness to both poor mental and physical health. Throughout the pandemic, anxiety, depression, sleep disruptions, and relationships problems, have increased for many adults. They have also experienced a number of pandemic-related consequences – such as closures of universities, transitioning to remote work, and loss of income or employment – that may contribute to poor mental health. Throughout the pandemic, women have been more likely to report poor mental health symptoms compared to men.

Conclusions: These findings highlight the need for preparedness in the health sector, as well as in the mental health sector during outbreaks of infectious diseases, and the need for concerted efforts, sensitive adaptation of existing protocols and the development of new guidelines for the management of mental health problems for the present pandemic and subsequent occurrences.

KEYWORDS      

Preparedness of the national reference unit on laboratory surveillance of viral emergent diseases against the novel Coronavirus 2019, in Albania

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Introduction and objective: In December 2019, a previously unknown Betacoronavirus was discovered through the use of sequencing in samples from patients with pneumonia of unknown cause linked to a seafood and wet animal wholesale market in Wuhan, China. Different from both MERS-CoV and SARS-CoV, 2019-nCoV is the seventh member of the family of coronaviruses that infect humans¹. The objective of this presentation is to show the laboratory capacities to quickly detect this virus and respond efficiently.

Methodology: With the support of close collaborators and part of the main important networks coordinated from Medilabsecure, WHO and CDC we received the assay published from the

Institute of Virology, Charite, Berlin from WHO and primers probe kits together with positive control from Medilabsecure. This assay is now validated, standardised and successfully implemented in our laboratory.

Results: So far, there have been no positive cases related to SARS-CoV 2 in Albania. We are observing this global emergency situation as it is evolving with added value referring to the laboratory component.

Conclusion: We can conclude that our country is well prepared to quickly identify with high standards and be a key component of the response.

KEYWORDS ALBANIA REAL-TIME PCR SARS-COV-2

The outbreak investigation and contact tracing during SARS -CoV-2 infections in different settings

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Aim: COVID-19 disease is a major health problem causing severe acute respiratory illness in humans. The purpose of this study is to describe the spread of Covid -19 in different risk groups such as health care workers, prisoners, police force and workers in manufactures based on the epidemiological triad place- person-time.

Methods: This is a descriptive study. Data were obtained from the case-based Surveillance System for Covid-19 collected at the Institute of Public Health. The analysis was performed in EpiInfo 7 and Excel 2017.

Results: A total of 2947 suspected cases of Covid-19 were reported among the police force group. Confirmed cases were 1030 or 35%. They represent only 1.7 % of total cases with Covid-19 in Albania. The highest number of confirmed cases belong to Tirana with 195 cases or 19%. 36.4% of confirmed cases were reported during November. Among the prisoners, were reported 361 suspected cases with Covid-19 and only 124 or 34.3% were laboratory confirmed. The highest number of confirmed cases were from Fushe-Kruja prison 44 cases or 35.5% from total. Most of the confirmed cases were reported during December (42 cases or 34%).

A total of 2136 samples taken from manufactories were tested. Laboratory confirmed cases resulted 657 (30.7%). The largest number of confirmed cases belong to Kruja with 34.2% of the total followed by Gjirokastra with 10% of the cases tested.

Among 9468 health care workers (HCW) tested only 2347 or 44.8% are confirmed. The incidence of Covid 19 among HCW was 1020 per 10.000 person. Only 22 deaths has occurred during this period among them. Most of the cases were registered in MTHCC in Tirana.

Conclusions: This pandemic affected the entire population. The virus was rapidly spreading among different risk groups due to close contacts and noncompliance with the protocols. Health care workers were the most affected group mostly in Tirana as they are in close contacts with the patients with Covid-19. Vaccination, implementation of hospital infection control measures, case isolation and quarantine of all their close contacts are the main measures to prevent further spread of the disease.

KEYWORDS CONTACT TRACING COVID-19 OUTBREAK INVESTIGATION PANDEMIC

Investigation of a Salmonella Enteritidis foodborne outbreak, occurred during family ceremony in a district of Fier, on August, 2019

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Aim: Determination of the etiology and mode of transmission of a foodborne outbreak in a district of Fier, and implement the measures of control and prevention.

Methods: On August 2019 in a district of Fieri a foodborne outbreak occurred during a family ceremony. A retrospective cohort study was conducted. A standardized questionnaire gathering socio-demographic and epidemiological data was used. Stool samples by rectal swabs were collected from 36 participants at the ceremony. Attack rate were calculated for each consumed food item.

Results: The mean age of participants was 36.6 years old with a range (1 – 82) years. 66.9% (81/121) of them were diagnosed with acute gastro-enteritis. The most frequent clinical signs and symptoms were diarrhea (82.7%), fever (69.1%), vomiting (44.4%) and abdominal pain (37.0%).

76.5% (62/81) of cases had illness onset within 24h, incubation period varied 6-72h. The attack rate for the "Roast" was 66.7%, followed by "Rump-steak" (AR=63.0%), "Chopped steak" and "Steak" (AR=60.5%), salad (AR=58.0%), kebab (AR=53.1%), cake (AR=21.0%), not-alcoholic drinks (AR=16.0%) and Lamb barbecue (AR=7.4%). Salmonella Enteritidis was isolated and identified in 66.7% (24/36) of stool samples.

Conclusions: Salmonella Enteritidis was identified as the etiology of the outbreak, more probable associated with the consumption of "Roast" and other pre-prepared and re-warmed foods prepared and serviced without complying with the necessary hygienic-sanitary conditions. Strengthening and improving food security in all chain of food preparing, maintaining and serving, for assessment and elimination of risk factors, continue to be a necessity for the improvement of life quality.

KEYWORDS CONTROL MEASURES **FOODBORNE** INFECTIOUS DISEASES **OUTBREAK** SALMONELLA

Epidemiological characteristics of the measles outbreak and measles vaccine coverage in Kosova

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Aim: Promoting the importance of immunization in preventing eventual communicable disease outbreak. Correlation between immunization through the application of the measles vaccine and the incidence of the disease in Kosova during the 2017 and 2018 period.

Methods: A total number of clinical cases with lab positive results during measles outbreak 2017/2018. Laboratory test for measles clinical cases, immunization record, data collection, the application of a questionnaire which aims to collect data on socio-demographic aspects, disease information and health status of suspected cases confirmed from the Primary Care Institute and Infection Disease Health Clinic. Immunization coverage with MMR vaccine (2012-2018).

Results: From 1050 cases investigated, 68% were laboratory confirmed. In 2017, 527 confirmed cases were reported in total with an index case in June.

Peak of the case reported was on September 2017. From December '17 cases rapidly decreased. Till the end of outbreak, the incidence was 0.49. Measles infection reached all group ages but a higher infection rate was among unvaccinated children under 12 months (Mb/1000 4.8) and 1-4 years of age (Mb/1000 1.5); 392/721 cases (Mb/1000 was 6.52) are children under 6 years of age. There is no significance on the distribution of measles cases between female (46%) and male gender (54%). Based on the evidence from all confirmed cases 90.9% were unvaccinated, 9% with no data. Routine vaccination coverage rate with MMR was over 95%.

Conclusion: The research results show that the majority of positive cases were infants up to 12 months old, before their first MMR vaccine. Current epidemiological situation of measles is favorable due to high vaccination coverage. This research can conclude the role of immunization to control measles outbreak.

KEYWORDS IMMUNIZATION LABORATORY TEST MEASLES

Molecular epidemiology and variant evolution dynamics of influenza A/H1N1pdm09 virus in Albania 2009-2018

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Introduction and objectives: In order to evaluate the epidemiology of influenza A and its surface antigens (haemagglutinin and neuraminidase) diagnosis and virological surveillance of influenza is essential for detecting novel genetic variants causing epidemic potential. This investigation aims to give a rationale for exploring the molecular epidemiology and variant evolution analysis of A/H1N1pdm09 viruses during 2009-2018 influenza season in Albania.

Methods: This work describes the peculiarities of phylogenetic and genetic properties of HA and NA spike proteins of influenza A/H1N1 pdm09 viruses noted in the strains laboratory confirmed and circulating in Albania. For this study period we have analyzed the samples collected from the virological surveillance in Albania and the phylogenetic and genetic analyses conducted at the WHO Collaborative Centers in London and Atlanta.

Results: During the post-pandemic phase (2009-2010) the antigenic characterization analyzes of A/H1N1pdm09 viruses showed good matching properties with the group of reference viruses

(including the vaccine virus A/California/7/2009). Phylogenetic analysis of the HA and NA genes in the next seasons indicated positioning of these viruses to the group 6B (2013-2014 influenza season) and later in the season 2015-2016 in the subgroup 6B.1 (introduction of a new potential glycosylation site) which have caused problems in many parts of the world. From the sequence analyses of 2017-2018 season it has been seen an exception on one isolate and two clinical samples. All had HA genes in the 6B.1 subgroup but with additional substitutions, one had the substitution L38Q in HA2 and two shared the substitutions S183P, E235D, N260D in HA1 and V193A in HA2. The NA genes clustered similarly and one had the substitution T16A and two shared the substitution N222D. One of these three findings is chosen from the WHO CC in London as representative to be suitable for making an egg isolate for starting a candidate vaccine virus development.

Conclusion: The results of this investigation confirm the necessity of constant regular antigenic and molecular surveillance of circulating seasonal influenza viruses.

KEYWORDS INFLUENZA MOLECULAR SURVEILLANCE VACCINE VIRUS

Measles cases in Lezha prefecture during the 2018 outbreak in Albania

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Purpose: Lezha was among the prefectures with measles cases during the 2018 outbreak in Albania. This prefecture includes important urban areas such as Lezha, Kurbini and Mirdita. The objective is to report investigation and action taken during this outbreak.

Methodology: The laboratory testing confirmed the first case on January 2018. The epidemiological working group, took action through guidelines, by practicing control and prevention measures which consisted in: isolation or self-isolation of the cases, use of masks and other standard equipment for infectious disease control and prevention through close contact vaccination and risk population.

Results: In Lezha, 69 cases were identified among 155 suspected cases (45%), where 29% (20 cases)

were > 2 years old and 17% (12 cases) were > 45 years old, with one fatality case >1-year-old. In Kurbini, 13 cases were confirmed from 29 suspected cases (45%), where > 2 years old were 61,5 % (8 cases) and 15,4 % (4 cases) were between 2 - 4 years old. In Mirdita, 4 cases of the 8 suspected (50%) were confirmed and 50 % were in >2 years old. All cases were tested through ELISA, real-time PCR, or Vero Slam. In all the prefecture the majority of cases were unvaccinated or one dose measles vaccinated children.

Conclusions: Early detection and response through continuing education of health practitioners are important components in controlling the outbreak. On time vaccination, in children as indicated in the national schedule (at 1 and 5 years of age) as well as catch-up campaigns for other groups was and it is crucial in preventing measles cases.

KEYWORDS MEASLES PREVENTION MEASURES VACCINATION

COVID -19 vaccination and its challenges for primary health care

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Ensuring immunization services is essential for protecting individuals and communities from vaccine-preventable diseases and outbreaks and for reducing the severe cases and hospitalizations.

According to a guide prepared by the Institute of Public Health (IPH) based on NITAG decisions it has been carried out prioritization process in terms of personal and work performed by HCW and age groups starting from the elderly and continuing with younger ages who are more likely to have severe forms of the disease.

Vaccination against COVID-19 started on 11 January 2021 with the Comirnaty® vaccine (Pfizer -BioNTech) for the most defined priority groups of health workers such as health workers of COVID-19 hospitals, of laboratories diagnosing COVID-19; health workers who perform sampling or nasopharyngeal tampons and conduct field investigation; health workers who work in emergency services and intensive care and the ones working in infectious disease, pneumology and pediatrics services of infectious diseases.

Vaccines in Albania are mainly delivered through primary health care units all over the country. The number of doses and the challenges posed to preserve the safety and storage of the vaccine dictated a new vaccination process in common centers already opened in 10 prefectures.

This process put primary health care workers included in vaccination and others in another environment. To

face this challenge, guidelines and efforts were made on how to set up the process together with guidelines on vaccines storage conditions, distribution and process of preparing and administration.

Another challenge was related to lack of possibility of classroom training but online trainings were organized for training of trainers and combined with site training before starting the vaccination process in every vaccination point to face such challenge.

So far, around 400 epidemiologists, medical doctors and nurses who deal with vaccinations have been trained. Training is a process still ongoing in relation to process itself but also to the different types of vaccines expected to be used in the country.

Not all vaccines for priority groups could be offered to vaccination points especially for the most vulnerable such as those living in long term facilities, people 90+ or 80+ of age, or those with underlying conditions so the vaccines were offered at the place of living by a well-trained vaccination team. Another plan on how to best offer the vaccines without increasing the cost is ongoing.

Until March 1st, the number of vaccine doses arrived in the country is 32,760 and till March 3rd have been vaccinated 15,115 persons at least with one dose of vaccine. From them there are 678 persons that already got the second dose.

KEYWORDS COVID-19 IMMUNIZATION OUTBREAK VACCINATION

The epidemic outbreak of Measles in Tirana during 2018

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Aim: Measles is a highly contagious [infectious disease](#) caused by the [measles virus](#). Symptoms usually develop 10-12 days after exposure to an infected person and last 7-10 days. Initial symptoms typically include [fever](#), often greater than 40°C, cough, [runny nose](#), and [inflamed eyes](#). Small white spots known as [Koplik's spots](#) may form inside the mouth two or three days after the start of symptoms. In 2018 we had an epidemic outbreak of measles in the capital of Albania, Tirana.

Methodology: This is a descriptive study that will help us understand the cause of the epidemic outbreak of measles during the year 2018.

In our analysis we took all the 1038 cases that were reported as measles cases at the Mother Theresa Hospital of Tirana. All the reported cases were inhabitants of municipality of Tirana, Kamza and Vora.

Results: In total we had 1098 cases of measles in Tirana. The most affected age group were the age group 0-1 years old (295 cases), followed by age group 16 to 20 years old (169 cases) and after that the age group 26-30 and so on.

The highest incidence was reported at the health center in Kamza (31.1 cases per 10.000 inhabitants), followed by the health center in Sauk (26.6 cases per 10.000 inhabitants), Paskuqani (20/10.000), Dajti (18.2/10.000), Qyteti.Studenti (17.2/10.000). The lowest incidence was shown at the health center in Shëngjergji and at the health center nr. 2, 4 and 8 located in the center of Tirana.

Conclusions: This outbreak shows to us that maybe we have problems in some age-groups regarding the vaccination schedule. The migration of population from other districts to Tirana and the specific situation that Albania has had during the year 1997 has created a gap in vaccine coverage of the population and so they were not protected against measles disease.

Why in Tirana? Because Tirana is the capital of Albania and the free movement of people brought a lot of persons that were not fully vaccinated.

KEYWORDS **MEASLES** **OUTBREAK** **HEALTH CENTER**

The importance to prioritize the readiness to implement the Minimum Initial Service Package (MISP) for Sexual Reproductive Health (SRH) in crisis

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As the COVID-19 pandemic demonstrates, every country is vulnerable to some form of crisis and, often, many crises occurring at the same time. The impact of natural disasters, climate change, conflict, and infectious disease outbreaks on health and societal well-being depends on how well countries and communities prepare for and respond to emergencies.

Sexual and reproductive health (SRH) needs are not put on pause during emergencies—and often increase due to disruptions to health systems, displacement and breakdowns in societal protection and social structures.

In 1995, members of the international humanitarian community formed the Inter-Agency Working Group (IAWG) on Reproductive Health in Crises and developed a set of minimum reproductive

health interventions to be put in place at the outset of a humanitarian crisis known as the Minimum Initial Service Package (MISP) for SRH. The MISP includes the SRH services that are most important in preventing morbidity and mortality while protecting the right to life with dignity in humanitarian settings.

To assess a country's readiness to provide these services, the regional Eastern Europe and Central Asia (EECA) IAWG developed the MISP readiness assessment tool in 2013, which was upgraded in 2020 by IPPF, with the collaboration of UNFPA and the global IAWG. These new guidelines will allow all SRH national working groups in EECA, including in Albania, to re-assess the national readiness to implement the MISP at the onset of a crisis, and define their priorities for the next 4 years.

KEYWORDS **MINIMUM INITIAL SERVICE PACKAGE (MISP)** **SEXUAL REPRODUCTIVE HEALTH (SRH)** **UNFPA**

Measles outbreak in Gjirokaster region in 2019

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Aim: The municipality of Gjirokastra has not reported any case of measles in the past years due to its high vaccine coverage, until 2018-2019 outbreak. The purpose of this study is to describe the spread of the disease in the population based on the epidemiological triad place- person-time.

Methods: This is a descriptive study. Data were obtained from the case-based Surveillance System for Measles registered at the Directorate of Public Health of this municipality. The analysis was performed in EpiInfo 7 and Excel 2013.

Results: In 2019 a total of 62 cases of suspected measles were reported. Of these 18 (29%) were confirmed and 41(66%) probable and 3(5%) suspected. The highest number of cases were reported during May. All of confirmed cases were unvaccinated and 7 (%) of them were patients imported from Greece.

The pediatric age group has the highest percentage of positivity (72%). 89 % of confirmed cases were patients living in urban areas. The female were most affected (56%). All probable case had close contact with people of the Roma community, who were to have measles.

Conclusions: This outbreak affected unvaccinated people mainly from Roma community coming from Greece, the country that was the source of this infection. This was confirmed by phylogenetic analyses of the samples tested. The main measures to prevent the further spread of the disease consisted of close cooperation with the family physicians in each health care centre, timely vaccination of all contacts and children according to the national calendar, implementation of hospital infection control measures and self-isolation of cases.

KEYWORDS **GJIROKASTRA** **INFECTIOUS DISEASES** **MEASLES** **OUTBREAK**

Outbreak of Parvovirus B19 rash in schoolchildren

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Aim: The aim of the study was to investigate a cluster of illnesses in school children with generalized petechial rashes to determine whether parvovirus was the causative agent.

Methods: Epidemiologic investigation was initiated on June, 17, 2016, to determine the etiology and extent of the outbreak. A case-patient was defined as anyone who developed a new rash from April 1, 2016 to the present date. Serum specimens were collected and tested at the virology laboratory of IPH for IgM antibody against parvovirus B19 with ELISA.

Results: Twenty three cases, all of them school children, were registered over a period of 10 weeks. The index case was on January 26. The median age was nine years with a range was 8-14 years.

49% were males. The mean duration of symptoms was four days, range (1 to 8 days). The symptoms included, headache, fever, cough, nasal drip, and joint pain. Sera were obtained from 6 (26.1%) out of the total of 23 cases who were in acute phase. Four (66.7%) out of six cases tested positive for parvovirus IgM. Primary healthcare facilities and the obstetric hospitals were also informed. Two positive serum samples were sent to the reference laboratory in Luxembourg for sequencing. The phylogenetic tree showed that sequences belonged to genotype 1a.

Conclusions: Parvovirus was the cause of petechial rash in children. In the context of measles and rubella elimination it is very likely that a high proportion of infectious non-vesicular exanthemas will be due to B19 infections.

KEYWORDS EPIDEMIOLOGIC INVESTIGATION INFECTIOUS DISEASES PARVOVIRUS

Assessment and management of mental health problems in emergency situations due to earthquake

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The earthquake of November 26, 2019, and subsequent aftershocks, created a state of emergency across the perimeter affected by the earthquake. The consequences of this situations on mental health often makes it difficult to handle in the overall context of the emergency. The Institute of Public Health established multidisciplinary work teams for the management of the post-earthquake situation, consisting of doctors, psychologists, public health specialists, in order to identify mental health problems and direct the affected persons towards the necessary treatment.

Meetings were held to identify the impact of the situation on mental health and to provide advice on how to manage these problems. Various targets were contacted, including children, chronically ill, pregnant women, etc. Working teams held meetings in various tents and centers where the earthquake evacuees were accommodated, in Vora, Shijaku, Kamza, Marikaj, Bubqi, etc.

In addition, informative meetings were held in some educational institutions / kindergartens in the region inside the perimeter of the earthquake. Another objective was to meet with health center staff, such as those in contact with affected individuals or individuals with the potential to present issues in the future. In order to help manage the situation, information material on security measures in such situations, advice on various targets, including the elderly, children, chronically ill, etc. were distributed.

This intervention plan, with the data and issues it identified, brought to the attention the importance of mental health care in emergency situations, especially the importance of the identification and timely address of problems of this nature, given that such problems can, in most cases, have a long-lasting impact on the individuals involved.

KEYWORDS CHILDREN ELDERLY EMERGENCY MENTAL HEALTH

Implementation of the quality control system based on ISO 15189:2012 with focus on national reference microbiological laboratories in Albania

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Aim: Since 2019 Albania is a member of the WHO Laboratory Task Force to preparedness and response to High Threat Pathogens. As part of this network we are supported to strengthening country core laboratory capacities, with focus on national reference microbiological laboratories, as laboratory services are key to adequate clinical and public health responses to infectious hazards. One important component in this regard is the implementation and monitoring of the quality management system. The aim of this initiative is to reach the final goal of having all the IPH microbiological laboratories accredited by the accredited bodies by the ISO 15189:2012 standard.

Methodology: In October 2019 a country assessment was based on a checklist generated by the ISO 15189:2012 involving but not only the main areas for the implementation of quality management like: Infrastructure, Bio-safety and Bio-security, Human Resources, Procurement, sample collection storage and transport, lab diagnostics etc. A report with clear recommendation on strengths and gaps is delivered and as a follow up we have started the mentoring programme with

the support of WHO. In December 2019 a mentor (licensed quality manager ISO 15189) visited our microbiology laboratories and an action plan with defined deliverables and deadlines is provided. This action plan will prepare all the documents and processes related to the pre-analytical phase of the implementation process.

Results: Overall, quality and biosafety management are weak. Participation to proficiency testing is not the case for all diseases diagnosed by IPH. Equipment preventive maintenance in IPH is not applicable for all the equipment. Lack of a primary reception room for all the types of samples received in the IPH.

Conclusion: The appointment of a team with assigned duties to conduct this work based on ISO 15189:2012 is officially created which will be integrated in the IPH structure in a latter phase. WHO High Threat Pathogens teams is supporting our country in setting up a national laboratory working group to elaborate a national laboratory policy and strategic plan which can be integrated in the new national health strategy.

KEYWORDS **BIOSAFETY MANAGEMENT** **STRATEGIC PLAN**

Albanian Flu Awareness Campaign 2019

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Influenza places a substantial burden on the health of Albanians each year, accounting an important role on the burden of communicable diseases. Except deaths and symptomatic influenza, the large number of mild to moderate infections result in work absences, losses to production and pressure on the health and social care services.

The Flu Awareness Week is marked every year in October. It aims to raise awareness on the importance of vaccination for people's health and well-being and to increase the uptake of seasonal influenza vaccination of the recommended risk groups such as pregnant women, older people, young children and people with underlying health conditions, all of whom are more vulnerable and at risk in developing complications from influenza. Additionally, health workers belong to the recommended groups and need to get vaccinated to prevent and protect their patients, relatives as well as themselves from influenza.

For several years, Albania has been part of European Flu Awareness Week, a WHO initiative through collaboration with the National Immunization

Program and Department of Health Promotion at IPH. This Week provides an opportunity for public health professionals, health care professionals, health advocates, communities, and families from across the country to work together to promote flu vaccination before the traditional winter peak in flu activity.

During Albanian Flu Awareness Week 2019, many activities were carried out. A digital campaign toolkit for Influenza was prepared for use and distribution through IPH website and social media. All WHO Flu Awareness Campaign Films were translated into Albanian and were posted and shared in all IPH and MoHSP social media. Additionally, a workshop on how to respond to influenza vaccine hesitancy and denial with journalists and media professionals was organized. On the other hand, many public health experts were engaged in talk shows, interviews and discussions on the benefits of vaccination every season.

KEYWORDS **ALBANIA** **INFLUENZA** **FLU AWARENESS WEEK** **VACCINATION**

Incident of coastal bathing water pollution in Ksamili area

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Aim: This case study, as a result of the breakdown of wastewater and the spillage of large quantities of these waters into the road and then into the sea, is important in identifying, assessing the causes of pollution that may harm the public health, informing and the temporary prohibition of bathing in these coastal bathing waters and taking measures to prevent exposure to pollution, eliminating the causes of pollution with negative impacts during the bathing season. The aim was to assess the quality of coastal bathing waters, by determining the bacteriological load caused by short-term contamination.

Methods: The incident took place in July 2017 on the coast of Ksamili, in the area called "Tre ishujt". During the on-site inspection, were selected the seawater sampling sites for microbiological analysis

near the contamination site and the surrounding area to follow the diffuse pollution rate discourse. Water samples were taken and transported to laboratories in accordance with the methodology and standards of coastal bathing water sampling and analyzed for bacteriological indicators: Intestinal Enterococci (IE) and Escherichia Coli (E.coli).

Results: The water samples resulted in high microbial contamination by categorizing these bathing waters as "Poor quality" - which means immediate action.

Conclusions: With the action taken the situation was normalized, referring to the bacteriological results of the bathing water in the incident area it turned out to be in very good quality.

KEYWORDS

BATHING WATER POLLUTION KSAMILI

Morbidity and mortality seasonal profile of non communicable diseases in Albania. Lessons for health system preparedness.

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Aim: Non-communicable diseases (NCD) remain the leading cause of mortality and morbidity in our country, so it is necessary to study their frequency according to seasonal climatic conditions in addition to the burden of chronic diseases in the population. This study investigates the seasonal pattern of mortality and incidence of some NCDs, especially coronary heart disease (CHD), cerebrovascular accidents (CVA), tumors, etc.

Methods: Three main datasets were used for this study: 1) All fatal and non-fatal coronary events recorded during the year 2018. 2) Data from the National Registers of Ischemic Heart Diseases, CVA and Cancers. 3) Other data from hospital admissions. Total deaths and new cases of selected diseases for each of four season are compared between them. Seasons are defined by three complete months of the year.

Results: During seasons of the year, it was observed a systematic pattern of mortality from cardiovascular diseases, with higher rates in winter months. In summer months the frequency of deaths was the lowest. There were 312 less cases

in summer (35.12% decrease) for CHD mortality, with respectively (894) deaths in winter and (580) deaths in summer months. The pattern was similar for CVA mortality with 28.27% less cases in summer compared to winter. The seasonal differences in morbidity of cardiovascular diseases were slightly different with the highest number of cases hospitalized in spring months. There were 16.3% more new CHD cases and 10.03% more new CVA cases in Spring compared to Summer. No seasonal pattern for cancers was observed.

Conclusions: The results showed that ischemic diseases and cerebrovascular disease have seasonality in both incidence and mortality. Possible explanations might be, higher vasoconstriction associated with lower winter temperatures and higher incidence of pulmonary conditions in colder months. These factors may interfere with health care seeking behavior and health system preparedness. Better knowledge on NCD's seasonal variation may help health care providers to plan more effectively their services. The complex relationships between climate and diseases need more research in the future.

KEYWORDS **NON-COMMUNICABLE DISEASES** **MORTALITY** **SEASONAL VARIATION**

Overview of Foodborne Disease Outbreaks in Albania from 2015 to 2019

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Aim: This study aimed to assess the foodborne diseases (FBD) outbreaks reported in Albania between 2015 and 2019, based on data from the data base of IPH (official data).

Methods: The study used aggregated data at national level from public health surveillance reports. Data on disease outbreaks of food and water borne diseases occurring from 2015 to 2019 were obtained from the national disease surveillance database and outbreak investigation reports. The dataset consisted of basic epidemiological information, regarding time, place, and total cases of each outbreak occurrence.

Results: During 2015-2019 there are 19 food borne outbreaks reported at the Institute of Public Health, Albania. Most of them are confirmed outbreaks by region and by pathogen. Salmonella (79%) was the

most frequently and common cause of foodborne outbreaks in Albania followed by Norovirus (10.5%), Shigella Sonnei (5.2%) and Bacillus Cereus (5.2%). Food borne outbreaks are more common during the summer period. Too often, outbreaks of food borne diseases go unrecognized or unreported or are not investigated.

Conclusions: Strengthening the capacity of local health departments to investigate and report outbreaks will assist with these efforts through identification of the foods, etiologies, and settings linked to these outbreaks. There is a need to have a joint platform for surveillance data, outbreak reporting and response and communication activities but also the effectiveness of the response and communication activities especially related to IHR implementation.

KEYWORDS EPIDEMIOLOGICAL SURVEY | **FOODBORNE ILLNESSES** | FOOD CONTAMINATION | FOOD SAFETY | PUBLIC HEALTH

Developing the agenda to guide future work on emergency management of public health issues

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Context: The gradual modernization of technology in health which does not necessarily correspond to the proper development of human capacities remains one of the main challenges in transitional Albania. Another challenge for the public health in Albania is related to the external environment characteristics including immigrants, free movement of people, cross-border care and epidemics. Also, there is a low level of basic cultural and health education of the general population. The concept of health education generally relates to the ability of individuals to contextualize their health.

Objective: To strengthen regional and international cooperation in response to global health issues such as:

Describing active participation in regional and international health cooperation by contributing

to Network of Health, by signing and implementing bilateral and multilateral agreements, strengthening existing co-operation with WHO.

The focus of the cooperation will be global issues that have a particular impact on the region and the country, such as humanitarian crisis, migration, natural disasters, climate change, cross-border threats etc.

Harmonization of national health standards, according to EU legislation and standard

Conclusion: Disaster preparedness and response should focus on building capacity to detect, evaluate and report important public health events; and maintaining open channels of communication with the WHO.

KEYWORDS **DISASTER** **EMERGENCY** **PUBLIC HEALTH**

Entomological investigation of Congo-Crimean Haemorrhagic Fever Vectors in north Albania (Zogaj and Helshan) in 2019

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Aim: The first cases in Albania of Crimean-Congo Haemorrhagic Fever was identified in 1986. In Albania, cases with CCHF occur almost every year. The most endemic region is the northeast part of the country, such in Kukesi, Hasi and Tropoja. Crimean-Congo Hemorrhagic Fever (CCHF) is an arboviral zoonotic infection which is endemic in some areas of the country. The aim of this entomological investigation was to assess the composition of tick species the prevalence of their distribution in endemic areas with a human case of CCHF. This entomological investigation was conducted in August 2019, by the Institute of Public Health in Tirana, Albania.

Methods: Ticks were collected directly from the animals, and serum samples were collected from domestic animals. Cows are examined using gloves for the presence of ticks in mammary glands, ears, and thighs. Protected white clothes are used during the field work, to avoid tick bite. Collected ticks were transported alive in the lab. Identification in species level is done, based on identification keys and taxonomic characters of (ICTTD), (Estrada Pena 2004).

Results: Six hundred and thirty-eight ticks were collected during 2019 from cattle in Tropoja (Zogaj) and Hasi (Helshan) districts. In total, four ticks species has been identified. *Hyalomma marginatum* (98%) was the predominant species collected and prevalent species in CCHF endemic areas, followed by *Ixodes ricinus* (1.66%) *Rhipicephalus bursa* and *Haemaphysalis parva* (0.34%) which found very low prevalence. Cows were the main host for *Hyalomma marginatum*. A total of 54 serum samples were collected from domestic animals in 54 cows. During the site screening, a total of 94/471 cattle were screened, 20% the total of cattle in the endemic area investigated, 46.80% (44 cows) were infested with ticks. The infestation rate in animals resulted in an average of 20 ticks / cow, with a variation of 2-3 ticks / cow up to a maximum of 96 *Hyalomma marginatum* / cow.

Conclusions: *Hyalomma marginatum* is abundant in CCHF endemic areas in Albania. The identification of geographical and seasonal distribution of ticks allows evaluating the risks and promptly implementing control measures for tick borne diseases.

KEYWORDS CONGO-CRIMEAN HAEMORRHAGIC FEVER ENTOMOLOGICAL INVESTIGATION VECTORS

The role of networks in Emergency Medicine

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For any health care provided to the patient, the interaction of health information is a fundamental issue. The ability to access, match, reconcile and use patient data, generated by different systems, enables better care and commitment to him. Today it is common for health care to be provided in many settings. Diagnosis and "travel" of a patient's treatment can be accompanied by the rapid provision of information from the doctor's office, radiology, operating room, etc. Each stop generates a record, such as physician records, test results, medical device records, summaries of medical supplies spent, or information pertaining to social health determinants. All of these are and should become part of a patient's

electronic health record in any environment. For a better result, it is essential that accurate, standardized, accessible, and interchangeable health information from all sources accompany patients at every step of their journey. All of this data has the potential to transform our healthcare system into a system that is constantly learning and improving through the use of predictive and decision-making analysis. Moving towards real interaction between health institutions is a must. Today is the time to give all patients the peace that comes from recognizing the fact that the health care provided to each of them is based on the best and most complete information possible.

Public health interventions and COVID -19

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COVID-19 pandemic presented an unprecedented challenge for the implementation and the efficacy of public health interventions. SARS-CoV-2 infection was detected for the first time in Albania in March 8, 2020 when still flu cases were circulating in the country. Till now hundred thousand cases were laboratory confirmed and the country went through different pandemic phases.

The aim of this presentation is to present the role and challenges of previous and current public health preparedness and interventions during the different phases of the pandemic in Albania. We identified the level of preparedness before the pandemic and during the pandemic through analyses of documents, strategies, health system

organization and preparedness, legal framework, education and continuous training. Public health interventions level of implementation was analyzed during different phases of the pandemic. Different challenges were identified for different interventions.

All interventions to limit the spread of coronavirus at population and individual level such as the social distance, strict, limited or longer lockdowns were and mandatory masks were the most challenging at population level and implementation

While others such as testing, contact tracing, investigation and isolation were the most challenging at health system level and multiagency coordination and collaboration level.

KEYWORDS CONGO-CRIMEAN HAEMORRHAGIC FEVER ENTOMOLOGICAL INVESTIGATION VECTORS

SESSION 5

Miscellaneous

Data on Antibiotic Consumption in Albania 2011-2017

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Introduction: Albania has provided data for each of seven years of data collection (2011-2017). The main sources of data are import records provided by the National Agency for Drugs and Medical Devices. The data presented, provide a more detailed understanding of the patterns of antimicrobial consumption in Albania and can help to identify areas for further investigation and allow development of targeted interventions to address potential problems identified in the consumption of antibacterial.

Methods: In order to provide new baseline trend data for AMC estimates, analyses for 2015, 2016 and 2017 have been re-run applying the new DDD values that came into effect in January 2019. Data are presented with both existing and new DDDs to illustrate the impact of the changes.

Results: The relative consumption of cephalosporins and quinolones combined has increased over time at 21.6% in 2011 and 41.6% in 2017. There have been some decreases in consumption of first-generation agents at 28% of total cephalosporin use in 2011 and 12% in 2017. The Watch group agents ciprofloxacin (10.3%), levofloxacin (3.3%), azithromycin (5.8%), clarithromycin (4.4%) and cefixime (4%) together comprise 27.8% of J01 oral agent consumption in 2017.

Conclusions: While the number of J01 antibacterial agents available is large, there is considerable evidence from ESAC-Net and other analyses that consumption tends to be concentrated in a relatively small number.

KEYWORDS ALBANIA ANTIBIOTIC CONSUMPTION DATA COLLECTION

Perceived human resource management practices, intention to leave and organizational citizenship behaviour of health care professionals in public health care institutions in Albanian

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The aim: The relationship between human resource management (HRM) practices and employees' intention to leave the organization has been gaining increased attention among researchers and human resource practitioners. The purpose of this study is to investigate the relationship between perceived human resources management practices (HRM), intention to leave of health professionals and organizational citizenship behaviour in healthcare institutions in Albania.

Methods: Adopting a quantitative method strategy using cross-sectional quantitative survey (N=100) we will examine the linkage between the human resources practices (performance appraisal, training and development, participation, autonomy and job design) with organizational citizenship behaviour (OCB) and intention to leave. The data

was collected with self-administer questionnaires from healthcare professionals (physicians, nurses, administrative staff, health academic staff etc.) working in health care institutions in capital city of Tirana.

Results: Hypotheses will be tested through regression analysis to investigate and understanding the correlation between HRM component and intention to leave and how OCB affect this relationship.

Conclusions: In addition, will be discussed the implication, limitation and future research directions in this topic. Using this sample this study tries to answer the questions of how and why OCB mediate the relationship with intention to leave of health workers in healthcare institutions.

KEYWORDS HUMAN RESOURCES MANAGEMENT PRACTICES HEALTH WORKER INTENTION TO LEAVE ORGANIZATIONAL CITIZENSHIP BEHAVIOUR

Health care infections caused by failure to perform hand washing procedures

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Aim: Health-related infections around the world there are numerous hands-on infections. Every year, hundreds of millions of patients are affected by health-related infections. All of these infections are the result of not using soap, antiseptic and disinfectant gels which should be present in the health care facilities. The aim of hand washing is to remove microorganisms from the hands, preventing their possible transfer. It is known that organisms survive and multiply in human hands, creating the opportunity to infect others.

Methods: At the health care facilities samples were taken of the personnel manipulating the operating room facilities and in the intensive care unit. Samples at the health care personnel were taken before washing and after washing with soap and water. In the normal flora of the hands there are two

types of germs that colonize the hands, such as the resident flora, which consists of microorganisms residing beneath the surface cells of the skin of the wrist and the temporal flora, which colonizes the superficial layers of the skin and is more suitable for removing from the usual hand hygiene by washing them.

Results: In total of 86 samples taken for the period January - December 2019, 79 samples, respectively = 91.8% were negative and 7 samples = 8.2% were contaminated with isolation and identification of pathogenic microorganisms of *E. coli*.

Conclusion: CDC recommends 15-20 seconds of vigorous hand washing with soap and water to effectively kill pathogenic germs, but only about 5% of people wash their hands for 15 seconds or more.

KEYWORDS ANTISEPTIC DISINFECTANT SOLUTIONS HAND WASH

Acute Flaccid Paralysis Surveillance and Vaccination Coverage in Albania

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Aim: Vaccination against poliomyelitis with Oral Poliovirus Vaccine Sabin (OPV) has commenced in Albania back in the year 1960. Poliomyelitis was eliminated as an indigenous infection in January 1997 and since then the country is polio free. Surveillance for acute flaccid paralysis (AFP) is of a paramount importance for the global polio eradication initiative. The case-based surveillance of AFP was established on January 1997 for persons <15 years and has always met the WHO performance standards. The National Albanian Polio/Enterovirus Laboratory is member of WHO European Regional Polio Laboratory Network and is the unique laboratory in the country concerning poliovirus isolation/identification and non-polio surveillance.

Methodology: Data are obtained from AFP surveillance and vaccination coverage from 2002 till 2019.

Results: Over this period, 121 AFP cases were reported to the National Surveillance Unit at IPH. Out of these, 73 (60.3%) were males and 48 (39.7%)

were females. Those ≤5 years old represented 64.5% of cases. Only 4 polio vaccine-associated paralytic paralyzes (VAPP) have been detected over the aforementioned period 2002-2019. Overall, 2,352 fecal specimens were collected in healthy children and those with other illness through the supplementary surveillance conducted in Albania. Polioviruses characterized as Sabin-like were isolated in 16 (0.68%) specimens. In contrast, non-polio enteroviruses were detected in 5.4% (127/2,352) of specimens.

Vaccination with full OPV has been used until mid-2014, when a mixed schedule (IPV/OPV) was adopted with a high coverage, above 95% at national level.

Conclusions: The AFP epidemiological performance indicators, along with the high immunization coverage rates as well as adequate laboratory surveillance activities represent a strong support towards the sustainability of the polio free status of the country.

KEYWORDS IMMUNIZATION LABORATORY SURVEILLANCE POLIOVIRUSES

Snapshot of brucellosis infection in clinically suspected patients with fever syndrome during the year 2019 in Albania

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Aim. To give an overview of the epidemiological situation of brucellosis among the suspected patients with febrile syndrome, the geographic distribution, the course of illness and prevention measures needed.

Methods. This is a retrospective study including 558 patients hospitalized with fever syndrome during the year 2019. A standardized questionnaire was used to collect the socio-demographic and epidemiological data. All sera samples of the patients were tested for presence of anti-brucella antibody by SAT (Standard Agglutination Test). The titer of antibodies $\geq 1/160$ was considered significant, based on manufacturer instructions.

Results. The mean age of patients was 42.5 years old with a range 1-87 years old, median 47 (IQR 25-62) 3.41% (19/558) of clinical samples resulted seropositive for presence of anti-brucella antibodies in significant titres. 63.2% (12/19) of seropositive cases were males. The highest positivity rate, 6.2% (8/129) was found in age group 25-44 years old, (OR=2.5 (95%CI 1-6.4 p=0.05). Higher rate of positivity

was detected in districts of Skrapar (33.3%), followed by Gramsh (25%), Pogradec (25%), Lushnja (17%) of samples tested. The months with the highest positivity rate were July (10.3%) (7/68) (OR=4.57, 95%CI 1.73-12.05 p<0.05), and January 7.1% (3/42) of samples tested. A significant decrease of seropositivity rate was found in 2019 (3.41%) as compared to 2009 (13.2%) (82/698) (p<0.001).

Conclusions. For several years, brucellosis has been a major zoonotic disease burden for public health and economic aspect in Albania. Brucellosis as a zoonotic disease is encountered more often on period 1-2 month after livestock birth seasons (July and January) without significant difference by gender. The south-east areas of Albania are most affected. Most important measures for control and prevention of the disease remain eradication of animal brucellosis through vaccination programs. The benefits of vaccination campaign and application of safety measures in livestock and environment in affected areas are clearly reflected also in human health through the decrease of morbidity of brucellosis during this period.

KEYWORDS ANTI-BRUCELLA ANTIBODY BRUCELLOSIS LIVESTOCK VACCINATION

Importance of Sterility Control in production of Blood Agar Media

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Aim: Isolation of infectious agents frequently requires specialized media. Culture media play a pivotal role in any diagnostic microbiology laboratory. Blood agar serves as an enriched, bacterial growth medium and is used for the identification and antibiotic susceptibility testing of many bacterial pathogens. The quality and sterilization of the media depends directly upon the quality of the all elements used for their preparation. The aim of this study is to evaluate the quality of agar blood medium preparation in our laboratory during 2018-2019 for microbiological diagnose.

Methods: The blood collected from the sheep is prepared based as instruction of the protocols. During the two years in preparatory laboratory are product 15 800 ml agar bloods medium. This medium is separated in 650 petri dishes with Ø 90 ml in standard sterilization environmental condition.

Results: In our institute sheep blood is the only source in the blood agar. Over all 650 petri dishes prepared in our laboratory only in one process we were before the fact of contaminated media. We have checked all standard procedure and in fin the problem was the contamination of blood. This contamination has happened during the manipulation of the sheep.

Conclusion: Thus the sterility, homogeneity, viscosity and color of the blood should be scrupulously checked before it is used for media preparation. If the conditions for manipulating and collecting blood in sheep are not in the required standard then the prepared ground will be contaminated. Hence the quality of the blood plays an important role in the performance of the blood containing media.

KEYWORDS CULTURE CONTROL MICROBIOLOGICAL DIAGNOSE STERILITY CONTROL

Microbiological quality of bathing waters in coastal areas of Albania during 2014-2018

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Aim: Bathing water qualities are highly vulnerable to microbial pollution from municipal sewage, industrial effluents as well as agriculture run-off and river discharges. Fecal contamination not only impairs water quality but also potentiates human health risks. The aim of our study was to see the 5 years' trend of microbiological quality of bathing waters in Velipoja, Shëngjin, Durrës, Gjiri i Lalëzit, Kavaja, Divjaka, Seman, Vlora, Palasa, Dhërmi, Himara, Qeparo, Borsh and Saranda coastals.

Methods: Every year we collect 900 samples, which are to be taken 30 centimeters below the water's surface and in water that is at least one meter deep. Assessment of bacterial load of the coastal waters was done 9 times for every point, for the *Escherichia Coli* and *Intestinal Enterococci*, according to the methods ISO 7899-1 and ISO 9308-3.

Bathing water assessment is to be classified according to the categories indicated in the Directive 2006/7/EC and recommendations of WHO/UNEP-2010.

Results: Microbial Water Quality Assessment Category (cfu/100 ml water) done in 100 monitoring point were: During 2014 Excellent quality 30%, Sufficient quality 11%, Good quality 10%, Poor

quality 49%. During 2015 Excellent quality 53%, Sufficient quality 23%, Good quality 9%, Poor quality 15%. During 2016 Excellent quality 39%, Sufficient quality 14%, Good quality 4%, Poor quality 43%. and during 2017 Excellent quality 74.5%, Sufficient quality 15.7%, Good quality 6.9%, Poor quality 2.9%. During 2018 Excellent quality 82.4%, Sufficient quality 13%, Good quality 0.9%, Poor quality 3.7%.

Conclusion: The number of monitoring point with excellent quality was increased for year 2018 compared to years 2014-2017.

Good quality category was increased for 2018 compared to 2014 and 2016 and decreased compared to 2015 and 2017.

Sufficient quality was decreased for 2018 compared to 2014 - 2017.

Poor quality was decreased for 2018 compared to 2014 -2017.

Microbial quality of recreational bathing waters in Albania have an significant increasing of the quality due to investment in the sewerage system and better waste water treatment.

KEYWORDS COASTAL AREAS MICROBIOLOGY WATER QUALITY

Molecular identification of Hepatitis C in dialysis patients

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The aim of study: This retrospective study was conducted to investigate the prevalence of active HCV infection, HCV genotypes and to monitor the viral load, for assessment of antiviral response performance, during and after treatment in HD patients of Albania.

Methods: During the period January 2014 until to December 2019, about 175 patients from dialysis unit of Albania are included in this study. Blood samples are tested at the Molecular Biology Laboratory from the Institute of Public Health. Viral load was measured for all patients positive for HCV-antibody by using Real-Time PCR. Genotype is identified in 77 patients and viral load was monitored for 35 patients, at the beginning of treatment, during and at the end of therapy, to see the virological response to therapy.

Results: Out of 175 patients included in this study, 58.3% of them resulted positive for HCV-ARN. The most predominant gender was male 61.8% compared to female 38.2%. Genotype 1b was predominant in 44.1% of dialysis patients. Based on virological response monitoring females presented a better viral response about 17.11 times faster than males. Patients with genotype 2 had a faster viral response than others, but only patients with genotype 3 developed SVR (sustained virologic response) in 100% of the cases. Genotype 1 was the most resistant one to therapy, where only 33.3% of patients developed SVR.

Conclusion: The study showed a high viremic prevalence in dialysis group of Albania with genotype 1 predominant, which is the most difficult to treat.

KEYWORDS ALBANIA DIALYSIS PATIENTS GENOTYPE HEPATITIS C PREVALENCE SUSTAINED VIROLOGIC RESPONSE

Serological evidence of Rickettsia infections in clinical suspected patients with fever syndrome during year 2019 in Albania

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Aim: Evaluation of the incidence of rickettsia infections in the suspected patients with febrile syndrome, geographic distribution and prevention needed measures.

Methods: A retrospective cohort study was conducted, included 402 patients hospitalized with fever syndrome during year 2019. Socio-demographic and epidemiological data was collected by a standardized questionnaire. Weil Felix was conducted for each patient sera sample. Detection of presence of antibodies $\geq 1/160$ was considered significant, based on manufacturer instructions.

Results: 8.2% (33/402) of clinical samples analyzed resulted seropositive for presence of anti-rickettsia antibody in significant titers. The mean age of study-group population was 42.4 years old with a range 1-87 years. District of Librazhd resulted with higher attack rate of illness 42.9% (9/21) OR=4.4 (95%CI 1.8 - 10.7) $P < 0.05$ followed from Elbasan 36.8% (7/19), OR=5.7 (95%CI 2.11 - 15.7) $P < 0.05$, Fier 21.4% (3/14), Kukës 20% (2/10). 10.2%

(18/177) of female tested resulted seropositive compared with 6.7% (15/225) of male tested, but with not epidemiological significance OR= 1.6 (95%CI 0.77 - 3.24) $P > 0.05$. 36.4% (12/33) of cases belong to the age-group 45-64 years old but with not epidemiological significance OR= 1.47 (95%CI 0.7 - 3.1) $P > 0.05$.

Conclusions: Rickettsia infection is an infection transmitted by ectoparasites vectors as fleas, lice, mites, and ticks through biting or infected fluids (as faeces) inoculated to the skin. Incidence of the diseases in the suspected patient with fever syndrome is considerable especially in some endemic areas of country as Elbasan and Librazhd. Affected all group ages, as males as females, habitant in infested areas. Most important measures for controlling and preventing of diseases remain control of vectors and respecting of hygiene and work safety condition in livestock and environment affected areas. Regardless of this epidemiological investigation, more detailed study to determine risk factors is needed.

KEYWORDS ANTI-RICKETTSIA ANTIBODY ECTOPARASITES RICKETTSIA INFECTIONS WEIL FELIX

Urban noise, impact on population health and noise management institutions

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Aim: Environmental noise is defined as an unwanted and harmful external sound caused by human activities. Noise pollution has become a problem for European citizens' lives due to the consequences it causes on their health. There are still difficulties today in determining the adverse health effects arising from noise. The aim was to assess the noise sources, evaluation of population annoyance rate by urban noise and finally, evaluation of population knowledge on the institutions responsible for noise monitoring and control of population group inhabitants of the Tirana city.

Methods: This is was a cross-sectional study. A questionnaire with 29 questions was constructed and 242 face-to-face interviews were conducted with randomly selected residents from different areas of Tirana.

Results: Data showed that 84% of interviewees were affected by noise in the respective residential area. About 70% of them consider the noise level in their area of residence is exacerbated, mainly by road transport noise (65%). The most health effects reported by the interviewers were irritation (63%), headache (60%), sleep disturbances (42 %) and anxiety (20%). More than one of three of the responded (37%) was unaware of the institutions responsible for environmental noise management, while 33% think that the Municipality followed by the State Police Department (14%) are the main responsible institutions.

Conclusion: Urban noise continues to be a growing concern for Tirana residents. The institutions responsible for noise monitoring and control should be more proactive in fulfilling their legal obligations.

KEYWORDS HEALTH EFFECT POLLUTION PERCEPTION ROAD TRAFFIC URBAN NOISE

Digital Eye Fatigue Syndrome

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The massive use of new digital technologies is causing new diseases that can damage our visual system. According to a study conducted worldwide, over 50% of children suffer from symptoms of prolonged exposure to the light of LED screens.

Our eyes are not designed to spend many hours a day in front of screens that emit light. The tiny images made up of millions of pixels that appear on the screens of our devices are not natural objects. In order to focus them, a considerable strain of vision is required. And this state of ocular tension, coupled with excessive lighting, are at the core of Digital Eye Fatigue Syndrome.

Digital eye fatigue causes redness, dryness, irritation and eye fatigue, blurred and foggy appearance. Prolonged exposure to screen light does not only cause problems with the visual camera, but involves the entire body causing headaches, neck and shoulder pain, lack of concentration, irritation and irritability. That is why it is necessary to prevent Digital Eye Fatigue by putting in place a set of tips. How to protect your eyes from exposure to screens? Use Only blue light filter lenses. Persons wearing corrective lenses make sure the lenses have a special filter, capable of blocking a good portion (80% - 90%) of blue light. The filter against blue light is also transparent, allowing you to keep the lens style and color of your choice.

Organize the work environment. Correctly illuminate the environment. When possible, natural light is advised, and when necessary assisted by artificial lighting.

Provide a suitable microclimate. When standing in front of screens for a long time, it is necessary to avoid the formation of air currents. Set the position of the study site. First it is useful to know what is the optimal distance between the eyes and the computer screen, which is recommended between 50 and 70 centimeters. When working in front of the screen, it is necessary to take repeated pauses for the eyes.

Ensure good eye hygiene and health. The hygiene of glasses, lenses and displays is a very important factor. Clean dust, stains and contaminants well to reduce glare.

This paper is prepared based on the methodology of observations, and periodic studies of vision problems.

Teachers in schools and parents at home should help children recognize and apply the rules for protection against digital eye fatigue.

KEYWORDS **BLUE LENS FILTER** **DIGITAL EYE FATIGUE** **STUDY ENVIRONMENT**

The epidemiological situation of Leptospirosis in Albania during the period January-October 2019 compared to the same period of 2018

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Introduction: Leptospirosis is a zoonotic infectious disease that affects animals and humans. People are accidentally affected by direct and indirect contact. Leptospirosis in Albania is one of the most problematic zoonoses especially in recent years.

Methods: A brief summary of the performance of leptospirosis for the period January-October 2019 compared to January-October 2018 has been made in the material presented. The largest number of specimens came from Hospital Center "Mother Teresa" University, but during this period suspected cases arrived from the other sites like gastro-hepatology.

Results: In total, during 2019, 47 cases were reported, compared to 65 cases reported in 2018 in the same time period. Cases were followed based on passive and active surveillance. Of the total reported cases, about 51.5% of them

were positive in both years (based on the period taken in the analysis). All cases were tested in the laboratory of Institute of Public health by ELISA test (NovaTec immunodiagnostica) for presence of IgM and IgG antibodies. In cases where there were suspicious values obtained from the examination a second serum is required within 3-7 days of the first sample. Second sample testing has increased the evidence of positive cases with *Leptospira spp.* The most infected cases resulted to be in age older than 45 years old followed by +65 years old. Male to female ratio is 9:1. According to geographic spatial the most infected are middle area and northwest of Albania.

Conclusion: Leptospirosis is an endemic disease in Albania. The positivity of the cases tested during this period is almost the same. Investigation of the risk factors for this disease is a necessary in our country.

KEYWORDS LEPTOSPIROSIS ELISA POSITIVITY

The scientific information and documentation unit of IPH during 2019-2020. Effectiveness and efficiency in data storage, classification, retrieval and dissemination according to EBLIP developments

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Aim: The paper presents the achievements of medical information/documentation unit attached to IPH, furthering AIHA LRC Project supported initially by USAID, during 2019-2020. The aim has been the creation of innovative and updated strategies for the local storage, information retrieval and dissemination of the main medical and public health local and online databases to meet the EBM and EBPH criteria.

Methods: There were done:

A. Updating of search and retrieval local equations for public health/medical information online medical/public health global databases consultations, based on the experience borrowed e.g. from University of Alberta, USA, and other recent studies, with both general and professional browsers/search engine, the selective dissemination according to documentary profiles to IPH researchers, the retrieval equations based on UNML terminological data from USA. Terms were selected from the research published by IPH researchers and by personal contact. More than 80 feedbacks, for 80-90 database searches, with more than 1000 primary/secondary documents, were collected/processed weekly, and the service was statistically assessed using multivariate data analysis techniques based on the primary recording of some health information indicators according to HIPNET/USAID.

B. Alert dissemination service on main public health/medical databases update, constant periodical service to all managers/researchers during the year.
C. Scientific translation.
D. Teleconsulting offers using chat, webinars etc.

Results: EBM and EBPH background conditions were generally met for monitoring and promoting research work, Articles and participation in international conferences of IPH researchers were assessed and supported. The contribution of information service was clearly evident in sparing time and money, e. g. by HINARI, etc. Problems arising on new epidemics, food safety and environment emergencies were supported, and helped to be prevented, offering the most reliable information in due time.

Conclusions: The necessary background to evaluate M&E HIPNET indicators has been created to assess public health information products and services, as well as for the compatibility achievement of local documentary languages/medical terminologies with UMLS. The information specialist profession confirmed as an indispensable part of health care and health policies system even in problematic political and economical environments, like Albania.

KEYWORDS DOCUMENTARY PROFILES EBLIP EBM EBPH HEALTH INFORMATION INDICATORS

Legionellosis in Albania

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Aim: Legionellosis as a disease is a form of severe pneumonia with mortality rate from 10 to 15%. Legionella pneumophila is responsible for almost all reported cases. Aware that this evidence indicates a risk factor and the lack of routine assays designed to detect Legionella species we have done this study to evaluate the situation of this infection in suspected patients.

Methods: We have collected 30 urine samples from patients that presenting clinical manifestations. For all patients enrolled in this study we have used a standard questionnaire about risk factors for this infection. The test used for diagnosis of samples is Legionella Urinary Antigen Card, from BinaxNOW, with sensitivity and specificity for L.pneumophila serogrup 1.

Results: Over all 30 samples tested in our laboratory by this conventional method only one

case (3.3%) was detected for L. pneumophila serogrup 1. Positive patient was male 47 years old, with profession taxi driver and living in Fier city. This method is strongly recommendation by ECDC and is applicable in all human diagnostic legionella laboratories.

Conclusion: Legionellosis has a high impact in public health service because this disease accounts 0.5 to 10.0% of hospitalizations for community-acquired pneumonia and the mortality rate is high also (10%). It occurs in isolated or epidemic forms and can affect and kill many people if it happens. Strengthening the laboratory capacity for diagnosis of human and environmental samples is of absolute importance. Nowadays this disease should be a priority in public health service.

KEYWORDS **LEGIONELLA** **PUBLIC HEALTH** **SUSPECTED PATIENTS** **URINE TEST**

Fifteen years laboratory diagnostic contribution to Echinococcal infestation (2004-2019)

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Aim: Echinococcosis has been an obligatory reportable at the National Reporting System Diseases level but, from the '90th till now, the disease was underreported.

The first CE prevalence data in Albania, known for 1935–1949 period, (Shiroka & Dervishi (1951), shows the infection appeared to be 1/3344 habitants (~1/100000). The aim was to help with the laboratory data in the improvement on management and in the reporting system, restoring again Echinococcosis in health control disease radar.

Methods: Since 2004, we're collecting and completing data by crossing sources of information (imaging, surgery interventions, histopathology, hospital statistics and epidemiology), checking our immunologic data as probable/ confirmed and follow up cases.

Most of suspected cases sent for immunologic confirmation of CE diagnosis at IPH, have come directly from the UHC, "Mother Theresa"-Tirana (imaging and surgery services).

The laboratory methods (ELISA & WB) and the follow up patient care too, results sensible and specific in disease regeneration or during free cysts location.

Results: The available data so far shows that CE may affect every age-group population. The positivity of all analyzed cases is 32%.

CE is widespread in different regions of Albania but Tirana with 1/3 of all the Albanian population, has the most number of presented cases.

63% of all our positive cases originate from Tirana but, it is assumed that the CE infestation isn't autochthonous.

All our data have been consulted and reported with hospital colleagues interested and patients too.

Conclusion: To create the CE Registry at the National Level would require a fullness commitment from all of us and we appeal to have nonstop feedback information between, to accumulate all the data of confirmed cases.

KEYWORDS ECHINOCOCCOSIS INFESTATION PREVALENCE UNDERREPORTED DISEASE

Enhancement of health education and health promotion in schools, as an opportunity to improve the health status of the population in Albania

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Context: In Albania, in pre-university education, there are about 450,000 pupils in 12 different years of study programs. The education and health system over the last three decades has undergone through significant changes oriented to different models. Currently, there is a lack of education and health promotion curricula, lack of clarity about the ownership of curriculum development, as well as a low level of teachers' professional competences in the field of health education and promotion. Also, there is a low interaction with specialized public health institutions, postgraduate qualifications and further trainings in this field, parental boarding and extracurricular activities that affect education and health promotion. In addition, school infrastructure lacks proper standards. The rapid development of Albanian society during these three decades requires that education and health system to be at the level of society development, to enable the pupils community the level of knowledge and health education, thus influencing the creation of a generation with the skills necessary to cope with the challenges of our society and to achieve the health objectives of the population.

Methods: This is a descriptive and analytical study which used quantitative and qualitative methods. In this study there were interviewed 500 teachers

of Physical Education, Sports and Health and 5000 pupils in Albania. The study sample was defined based on scientific criteria. Albanian curricula of health education was analysed and compared with European models.

Results: In the Albanian education system there is a new approach on health education. Since 2014, teachers of Physical Education, Sports and Health teach pupils health education and health promotion. Yet, there are no text books for pupils and/or for teachers. Levels of professional competencies of teachers are low. Also, pupils' concepts of the health education are low and they knowledge is mainly obtained through the media or peer education.

Conclusion: There is an immediate need to qualify teachers about Physical Activity, Sports and Health in order to increase their competences. Also, it is urgent to develop health education curricula. Health system should interact with education system to enhance collaboration for an annual action plan to be implemented in partnership with public health services and schools in Albania. Empowerment of health education and health promotion in schools should create the environment for a "healthier pupils" approach with the ultimate goal of achieving a healthy society in the future.

KEYWORDS HEALTH EDUCATION HEALTH PROMOTION PUPILS SCHOOLS TEACHERS

Frequency of gastro-enteritis in Durrës during the period 2015-2019

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Aim: To evaluate the frequency of gastroenteritis in Durrës district during the last five years.

Introduction: Gastroenteritis is most commonly caused by viruses, sometimes bacteria and less often parasites. The transmission of disease caused by microbes, spreads through the oral-fecal route, ingesting water or food contaminated with feces, person-to-person contact or direct exposure to contaminated feces. Children are particularly vulnerable to gastroenteritis.

Methods: Gastroenteritis cases in Durrës have been studied for a period of 5 years from 2015 to 2019 according to age groups, place of residence, treatment of cases in hospital as well as microbiological assessment of drinking water quality. The data are analyzed by statistical program Excel.

Results: In total 68571 cases were reported during years 2015-2019. The data show that the highest

number of gastroenteritis cases in Durrës district is found in 2018 with 15 804 cases, followed by 2017 with 15411 cases. The highest proportion of cases is occupied by women 53.78% females during the study of the disease about 90.5% cases of illness are in the city and only 9.2% of cases in the village. About 5.3% of the total cases were hospitalized. According to age-group the highest number of cases is 1-4 years (21.6%), followed by the age group 5-9 years (10.28%), 10-14 years (10.26%), on children under 1 year of age (8.49 %) and over 66 years old are (5.31%) of the total cases.

Conclusion: For the prevention of gastroenteritis it is important: To ensure adequate hygienic-sanitary conditions in the family and collective spaces. Continuous monitoring and control of food safety and monitoring water supply.

KEYWORDS CHILDREN DISEASE FOOD SAFETY

Assessment of the quality of sandy coastal waters in Velipoja and Shëngjin beaches for the period 2013 - 2018

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Aim: To assess the quality of coastal bathing waters on the beaches of Velipoja (7 sampling stations) and Shëngjin (5 sampling stations) extended in space and time.

Methods: Through this study, it was categorized the quality of coastal bathing water, as areas used for recreational and tourism purposes, during 2013-2018. This assessment is based on: Hygienic-Sanitary Inspection for the determination of sources of pollution (urban liquid discharges, used water discharged directly or indirectly into the sea), as well as the assessment of the microbiological load on water taken at sampling stations (by defining two indices of fecal contamination: Fecal Coliforms (FC) of *Escherichia Coli* and Intestinal Enterococci (IE) respectively. Comparison of results was made

based on the recommendations of the World Health Organization (WHO) as well as EU norms, Directive 2006/7 / EC on the quality of water for bathing (based on 95% percentile rating).

Results: Based on the comparison between the years taken in the study, for sampling stations on the beaches of Velipoja, concluded an improvement in the quality of coastal bathing waters in category A - Very good quality, from 57% to 100% in 2018. Whereas sampling stations on the beaches of Shengjin are categorized as very good quality for the whole study period.

Conclusions: For the period 2013-2018 there is an improvement in the quality of coastal bathing waters on the beaches of Velipoja and Shëngjin.

KEYWORDS BATH WATER COASTAL WATER SHËNGJIN VELIPOJA

Ozone monitoring in Tirana

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Purpose: Anthropogenic pollution has drawn attention on Earth's safety. Montreal Protocol 1989, approved a list of Ozone Thinners, but in 2015 at the far pole of the Antarctic, UV radiation measurements showed an increase in their concentration. This increase in UV radiation which was more concentrated at the South Pole, according to the EPA, can be attributed to the deep "hole" of ozone. The study identifies the lack of Ozone in the urban area and its trend.

Methodology: For this study, we analyzed data of Automatic Air Quality Monitoring in Tirana, Albania, for the period 2016-2019.

Result: Ozone Concentration: during the winter time, decrease according to a polynomial curve $R^2 = 0.979$. In an Urban Area, during the summer months the concentration increases, whereas

at night, for the same period, the concentration decreases. Reduced concentration at night, results according to a polynomial curve $R^2 = 0.955$. Exponential increase in Nitrogen Oxide concentration NO: $R^2 = 0.862$, is associated with an exponential decrease in O₃ Ozone concentration: $R^2 = 0.948$. Linear Temperature Increase: $R^2 = 0.669$ as consequence of global warming, is associated with linear decreases of ozone concentration $R^2 = 0.634$ in urban area.

Conclusions: Ozone level is related to solar exposure. This conclusion is also supported by data from other stations around the world. The reduction in Ozone concentration is affected by urban pollution. Increasing temperatures has an effect on Ozone reduction. High values during the day are a consequence of photolysis.

KEYWORDS AIR QUALITY MONITORING PHOTOLYSIS POLLUTION

Screening for colorectal lesions by virtual colonoscopy

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Aim: The purpose of this retrospective investigation was to compare the diagnostic capacities of virtual colonoscopy (VC) and optical colonoscopy (OC) in patients with colorectal neoplasms.

Methods: Our study covered a total of 118 patients, 81 males and 37 females with colorectal lesions who underwent both VC and OC in University Hospital Centre "Mother Teresa" between January, 2015 and December, 2017. We analyzed the indications for VC, its diagnostic value concerning tumour type, size, and localization. These indications included the following: a finishing procedure for viewing the colon; CRC staging and variability in anatomy and comorbidity, colonic postpolypectomy screening as well as non-invasive diagnostic modality.

Results: In 63 (53.4%) patients, VC detected colorectal lesions. A colon polyp was diagnosed in 29 (24.6%) patients but a CRC - in 22 (18.6%) cases. VC specificity and sensitivity was 94% and 98%, respectively. The results of OC and VC were comparable ($p > 0.05$). VC proved to be an accurate diagnostic method for CRC and colon polyps. It could be successfully applied in recognizing the two pathologies relative to the lesion size (OR=1.38, 95% CI 1.14-2.62).

Conclusion: VC is non-invasive and painless diagnostic procedure. It is useful as complementary option to OC and in cases with contraindications for OC as well. Because of its high specificity and sensitivity, VC should find a broader application as a significant tool for CRC diagnosis, staging and screening.

KEYWORDS **COLORECTAL CANCER** **COLON POLYP** **OPTICAL COLONOSCOPY** **VIRTUAL COLONOSCOPY**

Overview of Culture Media Preparation

Laboratory activity during January 2018- December 2019

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Culture media remains the commonplace in any microbiological laboratory. Culture Media Preparation Laboratory assignment is supportive and crucial for National Reference Laboratories at IPH, to achieve optimal and reliable results on the microbiological diagnosis as well as on research purposes.

Culture media were prepared following national protocols and specific standard procedures, checking different parameters such as growth, gel strength, contamination, pH, etc., to ensure a high standard quality and fulfilling the requirements of all diagnostics laboratories.

During the period of time January 2018 - December 2019, a total of 38 different types of culture media

were produced. They were classified as transport medium (Cary Blair), general/differential/selective medium (predominantly Blood-Agar, ECD Mug, Slanetz and Bartley, Mac Conkey, Muller-Hinton, etc.), strains conservation's medium (Glycerol and Lab-Lemco). (See Chart No. 1).

Major part of our laboratory's activity was covered by Culture media for the isolation and identification of Enterobacteriaceae (41%) and microbiological water analysis ones (18%).

The important role of culture media on diagnosis of Gastrointestinal and waterborne outbreaks or researches for pollution of bathing water leads to close cooperation and coordination between laboratories to obtain high results.

KEYWORDS CULTURE MEDIA DIAGNOSIS EPIDEMIC OUTBREAKS RESEARCH PURPOSES

Ozone deficiency in the Troposphere and Seasonal Illness

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Aim: Anthropogenic pollution has increased attention to health. The WHO 2010 standard monitors the High Ozone Level in the Troposphere, but what impact they have on health is not known. This study identifies Ozone deficiency and compares it to seasonal illness.

Methods: The thought is grounded in the comparison between the data of: DD for Ozone from SA in Albania (2 pcs) and some SA(19 pcs) around the world EPA.

Results: Ozone values in winter times decreases according to a polynomial curve $R^2 = 0.979$. In the Urban Area; the concentration of Ozone in the summer months increases, while at night it decreases according to a polynomial curve $R^2 = 0.955$. In summer: between Diarrheal Diseases,

Solar radiation and Ozone consumed at night; curves have polynomial behavior; R^2 respectively is 0.809; 0.988; 0.918.

Conclusions: Low value of Ozone in winter season; to all SA, and the lowest values in SA near poles; prove the connection between Solar radiation and concentration. Reduce Ozone Concentration at Night (in SA tr cent.), most in Summer, tells about its consumption from urban pollution. Compliance in time, only in summer, between Diarrheal Illness and Ozone Deficiency remains to be studied in the future.

KEYWORDS ENVIRONMENTAL HEALTH OZONE TROPOSPHERE

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