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ON PREVENTION AND PRIMARY CARE

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PROCEEDINGS BOOK

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WELCOME



What to prevent when preventing Implementing evidence-based prevention in General Practice

Dear Colleagues,

We are delighted to invite you to the European Forum on Prevention and Primary Care, scheduled to take place on 5-6 March 2025 in the beautiful city of Zagreb, Croatia.

In collaboration with the Family Medicine departments at Universities of Rijeka and Zagreb, as well as the most important general practitioners' associations, this forum aims to facilitate the exchange of knowledge and ideas on preventive medicine, foster new collaborations and perspectives, and create lasting connections and memories.

The main title of the forum, "Implementing evidence-based prevention in General Practice – What to prevent when preventing," will focus on delivering the latest insights and updates on prevention strategies in General Practice. We will engage in discussions on effective prevention practices while also exploring those that may not yield the desired outcomes.

Situated in the heart of Croatia, Zagreb presents countless opportunities to explore its rich history, discover captivating museums, and immerse yourself in its vibrant art scene. As the capital city, Zagreb warmly embraces international visitors and effortlessly maintains its old-world charm, all while accommodating its cosmopolitan population of over a million residents.

We cordially invite you to join us at this esteemed gathering of experts, practitioners, and researchers in the field of prevention and primary care. By attending, you will actively contribute to enhancing our collective knowledge and advancing evidence-based and sustainable approaches to prevention strategies in everyday Primary Care practice.

We look forward to welcoming you to the European Forum on Prevention and Primary Care in Zagreb. Together, let us shape the future of preventive medicine and make a significant impact on primary care practices.

Warm regards,

Ass. Prof. Jasna Vučak
2025 Forum Chair

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Oral Presentation / Research

New models to implement prevention in primary care: learning from the Brazilian Family Health Strategy in the UK

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Aim:

To improve population health outcomes, recent UK National Health Service policy plans propose three big shifts: moving from treatment to prevention, analogue to digital, and hospital to community. As demonstrated by the Marmot Review, addressing health inequalities in the UK requires innovative care models based on equitable prevention. The Community Health and Wellbeing Workers (CHWW) programme, inspired by the Brazilian Family Health Strategy, integrates community-based prevention with primary care targeting vulnerable communities, addressing health inequalities in Westminster, Cornwall, and Southwest London. This study investigated its impact and adaptability to the UK context.

Method:

A mixed-methods approach was used to address the study's aims. Quantitative analysis of primary care patient records and data collection sheets for households assigned a CHWW were used to evaluate the model's impact on prevention uptake. Qualitative analysis in the form of focus groups and case studies explored barriers and challenges to adopting the model and opportunities for scaling.

Results:

Across all sites, engagement rates reached 30-50%. In Westminster, households supported by a CHWW showed 40% higher service uptake, unscheduled GP visits reduced by 7%, and vaccination and screening rates increased by 47% and 82%, respectively. In Cornwall, the model addressed social health determinants through preventative interventions showing a 90% improvement in health and wellbeing scores. In Southwest London, early data demonstrated positive impacts, including increased uptake of preventative services and activities to enhance social determinants of health through integrated and holistic support.

Qualitative analysis revealed that the programme's success relied on trust, continuity of care, GP engagement, and multisectoral collaboration, with CHWWs addressing financial stability, housing, diet, and physical activity.

Conclusions:

The study showed effectiveness of adopting the Brazil Family Health Strategy model in diverse UK settings, highlighting the positive impact of primary care-community integration on the uptake of preventative health services and reduction of health inequalities.

Oral Presentation / Research**Osteoporosis screening using ultrasound calcaneus densitometry in the population of Zenica-Doboj Canton, FBiH**

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Keywords: Screening, Degenerative changes, Osteopathy

Aim:

To show data from the osteoporosis screening of the population over 30 years old from the Zenica-Doboj canton in 2024, using ultrasound calcaneus densitometry prevalence of osteopenia, osteoporosis, risk factors. Applying the world standard that osteoporosis is present in 30% of women over the age of 50, there are about 162,000 women suffering from osteoporosis in BiH.

Method:

The study was conducted using CaMos questionnaire (Canadian Multicentre Osteoporosis Study) and the NOF-recommended validated instruments for predicting osteoporosis risk (T score of -1.5 up to -2.49 osteopenia and more than -2.50 osteoporosis).

Results:

In total, 500 people participated (93.2% women). The respondents average age was 58.1 years (25-49 – 23%, 50-64 – 45.4%, 65+ – 31.6%), average height 166.16 cm, weight 76.76 kg, BMI 27.83. The use of hormonal preparations was mentioned by 6.4% of respondents (hip and wrist treatment in 0.2%, spine 0.6%, shoulder 0.4%). In total, 10.8% of respondents were treated with corticosteroids for three consecutive months, 25.6% have other high-risk diseases. The respondents physical activity was intense in 7.6%, medium in 37.2%, weak in 55.2%. Dairy products were avoided by 17.2%, vitamin D use was represented by 57.6% of respondents. There are no bone changes in 62.2%, osteopenia in 32.2%, osteoporosis in 5.6%. Osteopenia occurred at an average age of 61.8, osteoporosis at 65.6. People with osteoporosis had low or moderate physical activity in 92.8% of cases, another diagnosis in 28.5%, avoided dairy products in 21.4%, used vitamin D in 75%. Prevalence of osteoporosis and osteopenia in women >50 years was detected in 45% of cases.

Conclusions:

The results follow the global trends, as well as the associated factors (poor physical activity, chronic diseases, elevated BMI, age). Awareness of the vitamin D use in people with suspected degenerative bone changes has been proven.

Oral Presentation / Research**Pneumococcal Vaccination in Patients with Heart Failure: a Quality Improvement Program in Portugal**

Sara Silva Ribeiro, Maria Fortunas Teixeira, Joana Baptista Alves

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Keywords: heart failure; pneumococcal vaccination; primary prevention

Aim:

In 2023, pneumonia caused 4.2% of total mortality in Portugal and remained the respiratory disease with the highest mortality. The incidence of pneumonia increases with age and is more frequent in males, smokers, immunocompromised patients and in chronic diseases such as Heart Failure (HF). To assess the adequacy of pneumococcal vaccination in patients diagnosed with HF at a family health unit (FHU).

Method:

Observational and descriptive continuous quality improvement study between January and December 2024. Study unit: users registered at the FHU with a diagnosis of active IC. Internal and retrospective evaluation.

Results:

In the first evaluation of 260 users identified, only 36 had a complete pneumococcal vaccination schedule. In the second assessment of the 248 patients included 47 had a complete pneumococcal vaccination schedule. The final assessment identified 304 patients with HF of whom 74 had a complete pneumococcal vaccination schedule.

Conclusions:

A low percentage of HF patients with pneumococcal vaccination was identified. After multiple interventions, there was an increase in the number of patients with a complete vaccination schedule. One of the main difficulties was the refusal of vaccination by users, for economic reasons as well as concerns about the safety of vaccines.

TAKE HOME MESSAGE: It is essential to invest in health literacy and raise awareness of the importance of vaccination. The progressive expansion of the groups with free access and/or greater reimbursement of the cost of vaccines are key measures for greater adherence on the part of users.

Presentation on 05/03/2025 14:30 in "General Health Checks " by Sara Silva Ribeiro.

Oral Presentation / Research**Brief Guide for screening and brief intervention in risky and harmful alcohol consumption (SBI) in Primary Care (Spanish Society of Family and Community Medicine, semFYC)**

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Keywords: brief intervention, alcohol, screening

Aim:

In 2016 about 80 000 people died of alcohol-attributable cancer in the European Union (EU). As part of Europe's Beating Cancer Plan, the EU aims to reduce harms due to alcohol consumption through collaboration from the WHO Europe in the WHO/EU Evidence into Action Alcohol Project (EVID-ACTION) 2022. One of best practices for reducing alcohol consumption and harms is to facilitate access to screening, brief interventions and treatment. In 2022, semFYC published the Brief Guide for screening and brief intervention in risky and harmful alcohol consumption in Primary Care. The objectives of the guide are to provide a simple way to identify people whose alcohol consumption may represent a risk to their health to support healthcare professionals to develop an intervention plan and provide patients with personalized advice that can be used to motivate them to change their alcohol consumption. Available in <https://drive.google.com/file/d/1nBCUP0ukVpLvrZQmZZbOr9HESNadTIme/view>

The objective of this communication is to highlight the main characteristics of the Guide and the most relevant developments.

Method:

The new guide has been prepared after an exhaustive review of international guides

Results:

The new guide introduces a definition of terms used on concepts related to alcohol consumption, an algorithm on how to screen and carry out a brief intervention, and elements to discuss with the patient according to their alcohol consumption. It comes in an easy-read format, enabling easy implementation amongst PCP. It expands on the importance of communication skills and person-centered care, as well as it provides information on problem-solving steps. The guide ends with resources to refer to specialized services when necessary. The guide is available free of charge for downloads.

Conclusions:

The new guideline may make it more feasible for the guideline to be implemented. The introduction of clear algorithms and mention of communications skills can also help.

Oral Presentation / Research**Evaluation of User Satisfaction: the portrait of a Family Health Unit in Portugal**

Sara Silva Ribeiro, Maria Fortunas Teixeira, Joana Baptista Alves

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Keywords: user satisfaction; health services quality

Aim:

The constant world's evolution has implications in social, cultural and economic-financial spheres, which is why organizations must be prepared to remain competitive in the global market. A valid indicator in assessing the quality of services is user satisfaction.

Method:

Quantitative study using an anonymous, voluntary online questionnaire between June and October 2023, with closed questions and scale of values to measure responses and quantify user satisfaction with the structure, functioning, accessibility and quality of services. All users consented to the information provided being recorded.

Results:

335 responses were obtained. About satisfaction with the quality of clinical care received, 93% of respondents were satisfied. 78% of respondents were satisfied with the comfort of the facilities. The least positive results relate to accessibility - 71% of respondents said it was easy to contact the FHU by telephone, 91% were satisfied with the ease of getting to the FHU and 90% were satisfied with the unit schedule. Overall satisfaction with a score of at least 7 out of 10 reached 82%.

Conclusions:

This study provides an insight into satisfaction of FHU users in several sectors. In the future, it will be necessary to implement a methodology for characterizing and evaluating user satisfaction, standardized at a national level, enabling benchmarking between different health units.

TAKE HOME MESSAGE: The analysis of the results allows for the introduction of corrective measures aimed at improving areas of deficiency, with the aim of continuously improving the care provided.

Oral Presentation / Research**"Talking health", outreach education with vulnerable communities**

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Keywords: Prevention, communities, health inequity

Aim:

In Sutton (South West London, UK), we have a population of over 230000 residents and 4 areas with index of deprivation of 1 (highest in the country).

Over the last 3 years primary care has worked alongside community development workers (CDW), community organizations, public health and council to better support these communities and improve health outcomes in the long term.

The "talking health" project consists of regular group sessions in a community setting.

The project aims:

1. To provide education, self-care and preventative care to vulnerable communities in a culturally sensitive way.
2. To increase community connection and empowerment.
3. To build trust with medical professionals, reduce misinformation about health and connect residents with local resources.
4. To improve clinicians' knowledge about the communities they serve and professional satisfaction.

Method:

A mixed methodology of quantitative and qualitative analysis of data. This was gathered by evaluation forms completed after each session.

Results:

We have delivered 4 talks on menopause, 2 talks on arthritis. The sessions were suggested by communities and delivered by a General practitioner. We received 41 evaluation forms.

After the session, 87% residents rated their knowledge as being "very good" or "Excellent", 92% reported the group session had made them feel connected to others and 100% rated the speaker as "excellent" or "very good".

Integrated working between primary care and community roles has supported the delivery of the session in a community sensitive way.

All the professionals involved considered this to be a positive experience.

Conclusions:

This initiative is well received by vulnerable communities and has shown a positive impact in attendee's knowledge about a health topic. Attendees felt connected and positive about the clinician.

Integrated working could support community centered approaches in prevention.

Further research is needed to understand the impact of the sessions on patient's management of their own health.

Oral Presentation / Research

Level and Factors Associated to Zero Dose Children in Mozambique

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Keywords: Zero dose children; vaccination; Mozambique, Health Demographic Survey

Aim:

Globally around 14.5 million children had not received any routine vaccines, in 2023, mostly in LIC. In Mozambique, immunization coverage in children aged 12 to 23 is around 38%, with 750,000 zero-dose children. We aimed to analyze the level and factors associated with zero dose children aged 12-23 months in Mozambique.

Method:

Using statistical package R-v.4.3.3 we performed a longitudinal analysis of Demographic and Health Surveys data (2022-2023) in Mozambique. The log-Binomial regression model was used to assess zero-dose associated factors where p-value < 0.05 were significant.

Results:

1,801 children were studied, from whom 50.1% female and 72.7% from rural area. The prevalence of zero dose in 2022 was 15%, being prominent in the poorest children 42% (194/461), in children whose mothers did not have antenatal care 74% (165/222), who were born outside a healthcare facility 48.0% (263/548), whose mothers mentioned challenges to access any healthcare facility 31.4% (269/858) and whose mothers did not have the child health card 57.3% (318/555). A pregnancy without antenatal care increased 1.9 times (PR = 1.93; CI 95%: 1.38-2.70; P < 0.001) the risk of zero dose children, followed by child delivery out of the health facility 1.43 (PR = 1.43; CI 95%: 1.11-1.84; P = 0.006) and the absence of the child health card 3.94 (PR=3.94; CI95%: 2.94-5.26; P < 0.001).

Conclusions:

This evidence is an important base for other countries with similar characteristics as Mozambique. Zero-dose prevalence is considerably high in the country, especially in the most limited resources provinces from the north. Actions are needed to facilitate the access of the population to primary healthcare and essential vaccines to improve health and well-being in children and society. It is important to explore other potential factors associated to this condition to provide additional subsidies for decision making towards health system strengthening, improving vaccine coverage and reducing zero-dose prevalence

Oral Presentation / Research**Prevalence of prediabetes and other metabolic abnormalities in previously considered healthy male-population with obesity in Poland - a retrospective, observational, multicentered study.**

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Keywords: prevention, prediabetes, obesity

Aim:

Obesity is a complex and multifactorial disease which leads to development of many comorbidities and increases cardiovascular risk. Despite its prevalence up to 20% of the Polish population and quite straightforward diagnostic criteria, obesity still remains underdiagnosed and undertreated. The aim of our study was to assess the prevalence of obesity and coexisting metabolic abnormalities in the Polish population of men who were previously considered healthy.

Method:

A multicentered, observational study conducted on a population of men aged ≥ 35 years old without previously diagnosed cardiovascular disease (CVD), diabetes (DM) or chronic kidney disease (CKD) included in the CVD prevention program. We analysed anthropometric measurements and laboratory tests results (serum glucose, total cholesterol, LDL, HDL, non-HDL cholesterol and triglycerides). We also obtained the data on lifestyle with use of the Healthy Lifestyle and Personal Control Questionnaire (HLPCQ) and family history of cardiovascular disease. Obesity was defined as BMI ≥ 30 kg/m².

Results:

372 previously considered healthy males were included in the study. Among them 25% were diagnosed with obesity. We found a positive correlation with obesity and other metabolic abnormalities: increased systolic and diastolic blood pressure, lower HDL levels, higher triglycerides and fasting glucose levels. The prevalence of impaired fasting glucose (IFG) differed significantly among the group without obesity (20%) and the group with obesity (32%); $p < 0.005$. The prevalence of impaired glucose tolerance (IGT) differed between the two groups (5% vs 1%) without reaching statistical significance.

Conclusions:

Preventive programs in Poland aimed at diseases associated with lifestyle require redesign. Obesity is still an underdiagnosed disease and at the time of diagnosis many of the patients have already presented multiple cardiovascular risk factors as well as comorbidities such as prediabetes. There is a strong need for early prevention measures such as screening and education, but also early tertiary prevention in populations with diagnosed obesity.

Poster Presentation / Review

The role of lung cancer screening program in the prevention of cardiovascular diseases

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Keywords: low-dose computed tomography, cardiovascular disease, prevention

Review:

Objective: Coronary artery calcification (CAC) is a common incidental finding in lung cancer screening using low-dose computed tomography (LDCT). The benefit of LDCT is not only in the prevention of lung cancer detection, but also in the detection of cardiovascular disease (CVD). In that way morbidity and mortality can be reduced, as we know that the CVD is a major cause of death in lung cancer screening participants.

Methods: Lung cancer screening is carried out worldwide using LDCT, implemented through clinical trials, implementation studies, and organized national or regional screening programs. In Croatia, the first country in the European Union which launch a national screening program in 2020, it is organized by primary care physicians who directly recruit individuals for LDCT due to age and smoking. This screening offers individuals at risk, the chance to detect other health conditions that could benefit from preventive treatments, such as CVDs, chronic obstructive pulmonary disease (COPD), beyond lung cancer. The LUMASCAN study emphasizes the greater prevalence of CVD compared to COPD and lung cancer in the lung cancer screening population, underscoring the need for a cardiovascular prevention approach integrated into these programs. It was found that the management of CVD risk was inadequate for smokers and ex-smokers. CACs are an indicators of cardiovascular disease morbidity and mortality, regardless of other cardiovascular risk factors, and could help direct high-risk patients toward personalized cardiovascular prevention strategies.

Conclusion: CACs observed in LDCT images were associated with key CVD risk factors in population which meet criteria for lung cancer screening program and studies suggest that could potentially assist in determining whether to begin primary prevention for CVD in those population including clinical and laboratory tests which are not currently sought in lung cancer screening programs.

Poster Presentation / Review**Vitamin D - myths and facts**

Jasna Vučak

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Keywords: Vitamin D, screening and therapy for vitamin D insufficiency, family medicine physicians**Review:**

Introduction. Although numerous studies have shown a link between vitamin D (VD) concentrations and various diseases, leading to its widespread use and increased testing, there is no actual evidence of a causal relationship. Aim. This study aims to examine the latest recommendations related to testing and supplementation of vitamin D useful for family physicians' practices. Methods. PubMed, Google Scholar, and UpToDate databases were searched in the last ten years with a focus on the period from 2019 to 2024. Of the initial 88 complete articles, 23 were included in the analysis. Discussion. Although around 50% of people in the general population have VD levels <50 nmol/L, while 16% have measured values lower than 30 nmol/L, there is no clear evidence of the beneficial effects of supplementation. According to newer guidelines, empirical vitamin D supplementation is necessary for children up to 18 years, individuals over 75 years, pregnant women, and individuals with prediabetes who do not need prior testing of VD concentrations, while in certain conditions, this will be necessary. Adequate concentrations cannot be achieved through food alone in the case needed supplementation. When calculating supplementary doses, it should be considered that at our geographical latitude, exposure to 22% of body surface (legs) for 10-15 minutes allows for producing 1000 IU of VD from sunlight. Toxic effects of vitamin D are rare and high doses are required, suspicion may arise in case of symptoms characteristic of hypercalcemia. Conclusion. Vitamin D is primarily important in calcium homeostasis in the skeletal system, and indications for its use are defined by age, certain chronic diseases, and/or the use of certain medications. Taking this into consideration, family physicians should revise the use of vitamin D in the population they care for and advise appropriate application.

Poster Presentation / Review

New Osteoporosis Screening Program in the Czech Republic: Enhancing Early Detection and Management

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Keywords: Osteoporosis, early detection, FRAX, bisphosphonates, bone mineral density, fracture prevention, primary care

Review:

Osteoporosis (OP) is the most common metabolic bone disease, characterized by an imbalance between bone resorption and formation, leading to decreased bone density and increased fracture risk. It often progresses silently for years, becoming clinically evident only after low-trauma fractures, such as those of the vertebrae, proximal femur, or distal forearm. Among the most severe complications are hip fractures, which result in disability and a high mortality rate within the first year for more than 20% of patients. OP is categorized into primary and secondary types, with primary OP including postmenopausal, senile (involutional), and idiopathic forms, while secondary OP is associated with other underlying conditions like endocrine disorders, malabsorption syndromes, and long-term medication use.

Since April 2023, the Czech Republic has implemented a nationwide early detection program for OP, accessible to general practitioners and gynecologists. The program aims to identify at-risk patients and manage their care, significantly reducing the incidence of OP fractures. Risk assessment tools, such as the FRAX questionnaire, are used to determine fracture risk, guiding the decision to perform dual-energy X-ray absorptiometry (DXA) to assess bone mineral density (BMD). Treatment primarily involves bisphosphonates, which inhibit bone resorption and are available in oral and intravenous forms. The program also emphasizes lifestyle modifications, including fall prevention, vitamin D and calcium supplementation, and physical activity. The management of OP is multifaceted, with a focus on preventing fractures and preserving quality of life. Monitoring and adjusting treatment based on BMD changes, as well as addressing any underlying conditions, are critical to effective long-term care. The early detection program enhances the ability of primary care physicians to diagnose and manage OP, thereby improving patient outcomes and reducing the burden of osteoporosis-related fractures.

Poster Presentation / Case Report**A Rare Effect of a Common Drug: a case report**

Sara Silva Ribeiro, Maria Fortunas Teixeira, Maria Teresa Nunes

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Keywords: diabetes mellitus; oral antidiabetic; quaternary prevention

Introduction:

Diabetes mellitus (DM) is a prevalent chronic disease worldwide. Metformin is a drug widely used in the treatment of this disease due to its efficacy, low cost and potential to reduce the risk of cardiovascular events. It inhibits gluconeogenesis, gastrointestinal absorption of glucose and improves insulin sensitivity. Despite being well tolerated and safe, it has the potential to cause various adverse effects, with gastrointestinal ones being the most common and lactic acidosis the rarest.

Case:

A 70-year-old woman with a personal history of asthma, obstructive sleep apnea syndrome, type 2 DM, hypertension and breast carcinoma, medicated for her pathologies, including a daily dose of 2 grams of metformin, went to the emergency department due to dyspnea associated with upper quadrant abdominal pain, after having undergone upper and lower digestive endoscopies 3 days earlier. On admission, she was agitated, hypotensive, tachycardic and tachypneic, with dehydrated mucous membranes. Analytically there was acute kidney injury (creatinine 8.57 mg/dL and urea 177 mg/dL) and severe metabolic acidosis (pH 6.734, HCO₃⁻ 2.5 mEq/L and lactates 19.2 mmol/L). She was then diagnosed with metformin-associated lactic acidosis, requiring hospitalization for 7 days. She was discharged hemodynamically stable, asymptomatic and medicated with empagliflozin 10mg and linagliptin 5mg, after suspension of the oral antidiabetic previously instituted.

Discussion:

Dehydration, in this case associated with intestinal preparation for digestive endoscopies, is a predisposing factor for renal failure which reduces the elimination of metformin through kidneys, increasing its plasma levels, especially if metformin administration is continued. The management of severe metabolic acidosis associated with metformin requires aggressive treatment to correct the metabolic disorder. The family doctor has a key role in managing therapy and counseling diabetic patients before diagnostic procedures or in the event of acute illnesses. It is essential to make patients and medical staff aware of this scenario.

Presentation on 05/03/2025 12:30 in "Lunch Break / Poster Session 2" by Sara Silva Ribeiro.

Poster Presentation / Research

Development and Implementation of Methodology for School Preventive Health Screenings for Children: The Proactive Role of Public Health in Early Detection of Health Problems

Erna Terzić, Muhamed Skomorac, Iman Kovač, Amar Terzimehić, Elma Kuduzović, Selvedina Sarajlić-Spahić, Azra Husković, Lejla Selimović, Nino Hasanica

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Keywords: screening, prevention, intervention

Aim:

To present a sustainable methodology for organizing and implementing school health screenings conducted by highly trained nurses in the school environment. Children health screenings are legally regulated in most countries. Their current model is often limited by logistics, resources, poor parental response. Many health issues in children remain undetected.

Method:

A series of steps has been defined for the implementation of the proposed methodology for school screenings, including organization, execution, evaluation. The methodology was designed to be flexible, sustainable, adaptable to school environments: forming health teams, establishing cooperation with schools, preparing logistics, collecting and statistically processing data, obtaining feedback from parents and schools, reporting to relevant ministries.

Results:

In 2024, screenings for schoolchildren were conducted in all 258 schools in Zenica-Doboj Canton (B&H) for all children in the second, sixth, and eighth grades of elementary school, and first-grade students of secondary school. Deviations from the normal state were identified in the eye screening for second-grade students with 248 (9%) children, in the eighth grade with 159 (7%) children, hearing screening in the second grade with 80 (3%) children, and in the eighth grade with 38 (2%) children, locomotor system screenings in the second grade with 1,173 (40%), in the sixth grade with 1,032 (35%), and first-grade secondary school students with 919 (34%) children. Deviations in BMI for age were observed in 1,155 (39%) second-grade children, 1,260 (42.6%) sixth-grade, 331 (11.7%) eighth-grade, and 800 (29.6%) first-grade secondary school students.

Conclusions:

The preventive school screenings implementation in the school environment by public health teams has shown significant potential. The comprehensive coverage and early problems detection confirm methodology effectiveness. In addition to increased accessibility and economic efficiency, the added value lies in the parents and children education, in strengthening the cooperation between the educational and healthcare sectors

Poster Presentation / Research**Enhancing Social Health through Community Integration**

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Keywords: social prescribing; social health

Aim:

Social health, recognized as a key determinant of overall well-being, often receives less attention compared to physical and mental health. This study investigates the implementation of social prescribing as a strategy to enhance social health through community integration in Guimarães, Portugal.

Method:

The study evaluates various local programs, including Local Social Development Offices, the Social Network, and initiatives like Guimarães 65+ and Guimarães Welcomes, highlighting their contributions to community well-being as well as their limitations. Key recommendations include the development of a formalized social prescribing framework, comprehensive training for healthcare providers, detailed resource mapping, and the establishment of robust inter-agency communication mechanisms.

Results:

This research identifies significant gaps in the existing social support infrastructure and proposes a structured framework to address these challenges.

Conclusions:

Family doctors in Guimarães play a pivotal role in implementing social prescribing. They often serve as the first point of contact for patients in the healthcare system, allowing them to identify medical, social, and emotional needs. However, barriers such as lack of knowledge, infrastructure, and resources have hindered their engagement in social prescribing. By implementing these strategies, Guimarães has the potential to significantly improve social health outcomes, offering a replicable model for other cities. This research emphasizes the crucial role of social health in public health initiatives and advocates for its integration into broader health policies to ensure equitable community development.

Presentation on 05/03/2025 12:30 in "Lunch Break / Poster Session 2" by Sara Silva Ribeiro.

Poster Presentation / Case Report

Iron Deficiency Anemia as the Initial Presentation of Ascending Colon Adenocarcinoma in a Young Adult Male

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Keywords: iron deficiency anemia, ascending colon cancer, adenocarcinoma, young male, prevention

Introduction:

Iron deficiency anemia, indicated by low serum ferritin, red cell microcytosis or hypochromia, can be an early sign of colon cancer, which is increasingly affecting younger individuals under 50 who typically fall outside standard screening criteria. That include factors such as age over 50, a family history of colorectal cancer, a history of inflammatory bowel disease, or the presence of hereditary conditions. Recognizing this condition is vital, emphasizing the importance of GPs in prompt cancer detection and referral.

Case:

A 38-year-old male with no past medical or surgical history presented his GP with symptoms of chronic fatigue lasting a few weeks. The patient did not have a history of gastrointestinal bleeding, alcohol consumption, or smoking. Also, there was no family history of gastrointestinal malignancies. Laboratory tests showed severe microcytic hypochromic anemia with hemoglobin of 124 g/L, hematocrit of 0.409 L/L, MCV of 79.1 fL, serum ferritin of 8 ng/ml, serum iron of 5 µmol/L, transferrin saturation of 6%, TIBC of 86 µmol/L, UIBC of 81 µmol/L, transferrin saturation of 4%. He had a normal serum CEA and CA 19-9 levels. To urgently determine the cause of his anemia, the GP promptly referred him for a total colonoscopy which revealed a polypoid neoplastic mass in the ascending colon. Histopathology of the mass showed invasive well-differentiated adenocarcinoma, and the CT scan confirmed an infiltrative process of the cecum and ascending colon without signs of disease dissemination. The patient underwent a right hemicolectomy and for now, is only under follow-up as recommended by oncology.

Discussion:

This clinical case underscores the important role of primary care in recognizing iron deficiency anemia as an indicator of potential colon cancer in young male patients. Early diagnosis of the malignancy reported significantly improved the patient's prognosis and survival, avoiding complications and more severe therapies.

Presentation on 05/03/2025 12:30 in "Lunch Break / Poster Session 2" by Jure Krstulović.

Poster Presentation / Review

Preserving mental health in the community: The "Life" Club of Treated Alcoholics, Brač, Croatia, and its connection to the Netherlands' experience – the EUPROMENS project

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Keywords: alcoholism, Club of Treated Alcoholics, social prescribing, family medicine, community mental health care

Review:

Introduction. According to the World Health Organisation (WHO), the European region has the highest alcohol consumption in the world. Drinking alcoholic beverages is deeply ingrained in Croatia's traditions and customs. According to data on alcohol consumption, not only is Croatia among the top five countries (10.2%) with a prevalence above 10%, alongside France, Bulgaria, Spain, and Portugal (20.7%), but 15-30% of young people aged 15 in Croatia consume alcohol weekly. Additionally, only 8-10% of individuals with alcohol addiction receive treatment. The male-to-female ratio of those affected was 10:1, but today it is 2:1. **Aim.** To present the Club of Treated Alcoholics (CTA) as part of social prescribing and mental health care in rural areas in the context of community psychiatry practice, such as the one developed in the Netherlands.

Discussion. The "gold standard" for alcohol treatment includes hospital detox, intensive day-hospital psychotherapy, and outpatient monitoring. CTA extends care into the community, involving patients and families long-term through weekly meetings. It provides counseling, rehabilitation, and reintegration while addressing challenges like low awareness, stigma, relapses, and small membership in a tight-knit island setting. This community-based model is well-established in countries like the Netherlands.

Conclusion. Primary care doctors support mental health through social prescribing, promoting healthier lifestyles and reducing medication use and hospital visits. CTAs, often led by general practitioners, play a key role in community addiction treatment and rehabilitation.

Presentation on 05/03/2025 12:30 in "Lunch Break / Poster Session 2" by Nataša Mrduljaš-Đujić.

Poster Presentation / Research

Impact of Parental Habits and Attitudes on Oral Health of Preschool-Aged Children: Implications for Public Health Interventions

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Keywords: caries, prevention, DMFT index

Aim:

To determine the correlation between parental habits and attitudes and children oral health status. To compare the effectiveness of different approaches in children dental screenings. Insufficient oral health knowledge importance by parents results in a worse clinical oral cavity status in children.

Method:

The research uses a combined approach that includes qualitative (DMFT index, parental attitude questionnaire), quantitative (semi-structured interviews with dentists, pediatricians, dental, pediatric nurses), intervention methods (sending written invitations to parents of two-year-olds to their personal addresses, as well as through an open public invitation), to investigate the factors influencing preschool-aged children oral health.

Results:

The questionnaire was completed by the parents of 364 children who underwent a dental examination and DMFT index determination. In total, 83% of children have cavities, 10.3% have had a tooth extracted, 6.7% have a tooth under a filling, and 77.7% have visited a dentist at least once. Most parents (87.4%) reported that they brush their children's teeth in the first or second year of life. In 65.9% of cases, parents are aware that their child has teeth affected by caries, and 47.8% of children with carious teeth had them treated. In total, 84.3% of children consume sweets daily, 44.8% of parents reported that their children consume sweetened beverages daily. Invitations for dental screenings were sent by mail to 300 parents of two-year-olds. In total, 26.3% of children responded to the invitation and underwent a dental screening. From the control group (300 children who did not receive the invitation by mail), no children underwent a screening ($p < 0.05$).

Conclusions:

To achieve maximum response and validity of the study, the implementation of combined methods is recommended, including personal calls, public campaigns, cooperation with primary healthcare institutions. Such an approach ensures greater involvement and increases preventive programs effectiveness.

Presentation on 05/03/2025 15:50 in "Coffee Break / Poster Session 3" by Elma Kuduzović.

Poster Presentation / Research**Evaluation of the implementation of a Spanish online training course on screening and brief interventions SBI in alcohol consumption for Primary Care Professionals
PCP “Mojate con el alcohol” (Get involved in addressing alcohol consumption).**

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2. SEMFYC

3. Ministerio Sanidad España

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Keywords: training, alcohol, brief intervention

Aim:

Alcohol consumption prevention is a cornerstone in public health strategy but this is under addressed in primary care. Supporting clinicians in Screening brief intervention (SBI) is fundamental to revert this. “Mojate con el alcohol” is an accredited 30-hour online training course on SBI in alcohol consumption aimed at Primary care professionals covering from epidemiology to the importance of communication skills in SBI. Sponsored by the Ministry of Health of Spain.

The aim is to evaluate the three editions of the course carried out in 2017 (2) and 2023-2024 (update contents in 2023 and completed in March 2024).

Method:

The course participation data and the quality survey carried out at the end of the course have been analyzed.

Results:

A total of 3.991 professionals have enrolled in the course in its three editions. We have completion data and quality surveys from 3.245 professionals who enrolled in the three editions of the course. 54% were nurses, 26% were medical doctors, and the rest were other professionals. Of those enrolled, 83% completed the course. The overall level of satisfaction with the course was 8.5 out of 10, and 96 % of those surveyed thought that the course had helped to improve their clinical practice. We highlight the large number of professionals who have enrolled in the three editions of the course and the high completion and satisfaction rate with it. Training in brief intervention in risky alcohol consumption can improve clinical practice and could improve the health of the population served by SBI-trained professionals.

Conclusions:

“Mójate con el alcohol” has a high acceptance, completion rate and satisfaction amongst primary care healthcare professionals, mainly nurses. Future research will be needed to evaluate the applicability of the course into daily practice and its impact around alcohol consumption prevention in the community.

Poster Presentation / Review**Simulation education project in primary healthcare**Filip Opančar¹, Ana Mašić Prpić¹, Venija Cerovečki²

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Keywords: Primary health care, Medical Emergencies, Simulation education**Review:****Introduction:**

Primary healthcare (PHC) teams interact with a large number of patients daily but rarely face urgent situations. The infrequency of these emergencies, combined with the need for complex knowledge and skills, pose a challenge for traditional education, which often focuses heavily on theory. Research has shown that the primary barrier for PHC teams in effectively managing emergencies is the lack of practical training or the failure to regularly update previously acquired skills. Simulation education is a training approach that involves creating an artificial clinical scenario within a safe and controlled environment, which can be a solution for PHC.

Project description:

The Erasmus + project Transsmed started in 2022. The project aims to increase the knowledge and skills of professionals, their competencies and efficiency in dealing with certain life-threatening situations using simulation education. The project is funded by the European Union. The project holder is Community Health Center Ljubljana, and the partners are Chair of family medicine of University in Zagreb's School of Medicine, Health center Zagreb – Center (HCZC) and Chair of family medicine of the School of Medicine of the University of Ss Cyril and Methodius in Skopje. Purpose of the project is to establish a competency-based sustainable system of education with simulations in PHC that will enhance the safety of patient management. The project ends in August of 2025.

Croatian results so far:

Newly equipped Simulation center in HCZC, with 15 educated instructors, started working in September 2023, and produced promising results. Two modules were made: advanced and basic life support with usage of automatic external defibrillator. All participants that finished training reported high satisfaction with the module, felt better suited for emergency situation, and expressed interest for continuous and further learning through simulation methods. This could contribute to the popularization of simulation education in PHC.

Presentation on 06/03/2025 10:15 in "Coffee Break / Poster Session 4" by Filip Opančar.

Poster Presentation / Research**Association of hypertension with risk factors among the student population of the University of Zenica**

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Keywords: hypertension, BMI, physical activity, dietary habits, students

Aim:

This study, conducted between march and december 2024., aimed to investigate the association between health risk factors and hypertension among students of the University of Zenica. The student period is characterized by an increased risk of developing unhealthy dietary and lifestyle habits, potentially leading to overweight, obesity, and chronic non-communicable diseases.

Method:

The study included 273 students (186 females and 87 males). Anthropometric measurements, body composition analysis using bioimpedance, blood pressure measurement, and questionnaires on dietary and lifestyle habits were employed. Statistical analysis was performed using the χ^2 test and ANOVA method, with a significance level of $p < 0.05$.

Results:

The prevalence of hypertension among students was 22.3% ($n=273$), significantly higher in males (39.1%; $n=87$) compared to females (14.5%; $n=186$). The majority of participants reported a low level of physical activity, accounting for 64.5% ($n=273$). Elevated BMI (overweight and obesity) was observed in 37.0% ($n=273$) of students, with 27.1% classified as overweight and 8.4% as obese. Overweight was more prevalent in males (32.2%; $n=87$) compared to females (24.7%; $n=186$).

Conclusions:

The results indicate a significant prevalence of hypertension in the student population, associated with risk factors such as elevated BMI and physical inactivity. No significant association was found between hypertension and habits such as excessive salt use or coffee consumption. These findings emphasize the importance of timely prevention and targeted interventions to promote healthy dietary and lifestyle habits among students. Preventing unhealthy behaviors is essential to reducing the risk of chronic non-communicable diseases.

Poster Presentation / Research

Preventive Approach to Seeking Help for Mental Health Problems Through Opportune Use of the Questionnaire on Anxiety and Depressive Disorders in Family Medicine

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Keywords: Preventive approach, opportune cross-sectional research, seeking help for mental health problems

Aim:

Community mental health movements have as their objectives a change in the social context in which there is a greater risk of developing psychopathology. The existing network of state and private services of psychiatrists, psychotherapists of various educations, counseling centers for mental and spiritual health and self-help groups has recently been enriched with the service of mobile teams for the treatment of patients with severe mental disorders of the Andrija Štampar Teaching Institute. The question arises as to how we can change existing services to increase their efficiency.

Method:

The topic of our paper is an attempt to determine whether there is an increased need for intervention in the field of mental health in family medicine doctor's office before and after an opportune cross-sectional study. During 24 hours, we conducted two diagnostic tests on 32 volunteers who came to the family medicine office in random order. Sheehan anxiety scale of 35 questions and the Patient Health Questionnaire (PHQ) variant of the PRIME-MD test of 9 questions that the patient completes independently. The study included the number of patients who sought to talk to their doctor about mental health problems seven days earlier and seven days later than the study.

Results:

By counting the main diagnosis as the reason why the patient came to his doctor, we found that in the period before the survey, one or no patients came to the office daily for mental health problems as the first diagnosis, except on Christmas Eve, when three patients asked for help for mental health, which is the usual increase on that day, and after testing, 12 patients sought to talk about mental health problems.

Conclusions:

Although the sample is too small for statistical processing, it is multiple positive.

Presentation on 06/03/2025 13:30 in "Lunch Break / Poster Session 5" by Marija Petrovčić.

Poster Presentation / Research**Screening for Diabetic Retinopathy in Diabetes Mellitus by the Endocrinologist**

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Keywords: Diabetic Retinopathy, Diabetes Mellitus, Screening

Aim:

Diabetic retinopathy (DR) is a microvascular complication of diabetes mellitus (DM) and the most common cause of blindness in people of working age. Early detection and treatment are crucial to prevent vision loss from DR.

The aim of this study was to investigate the prevalence of DR in patients with DM.

Method:

This retrospective study was conducted from 2022 to 2024 at the University Hospital Zagreb and included 1334 outpatient adults suffering from DM. 32% of them suffered from type 1 DM, 65% from type 2 DM and 3% from other types of DM. 52% of the subjects were male. The subjects had no history of DR. Screening was performed by an endocrinologist using a non-midriatic fundoscopic camera.

Results:

DR was detected in 16% of patients, 57% of patients were male, median age was 52 years, IQR 27-63. When analysing the cumulative incidence, the duration of DM was 5 years in 19% of patients with proven DR, 10 years in 35%, 20 years in 80% and 30 years in 97%. The median duration of DM during which DR developed was 23 years (95% CI 20-26); in male patients the median was 20 years and in female patients 25 years. The duration of DM during which DR developed did not depend on the type of DM ($p=0.151$). DR was detected in 21% of patients with type 1 DM and in 14% of patients with type 2 DM.

Conclusions:

In this population, which included 1334 DM patients attending the endocrinology outpatient clinic, the prevalence of DR was 16%. The type of DM had no influence on the timing of the development of DR. It is important to recognise DR as early as possible to enable rapid treatment and prevent vision loss.

Poster Presentation / Case Report**The prevention of scabies**Veronika Vlašić¹, Nives Bunić²

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2. Dom zdravlja Zagrebačke županije

Keywords: scabies, prevention, skin**Introduction:**

Scabies is a highly contagious parasitic disease caused by *Sarcoptes scabiei* transmitted through direct skin-to-skin contact and indirectly through fabrics. Certain measures are necessary to prevent host's reinfection and the spread of infection.

Case:

A 48-year-old woman presented herself to the family doctor's office with itchy, excoriated erythematous papules on the skin of the lower trunk, groin, upper and lower extremities, present for a week. Scabies was suspected and a positive skin scraping for scabies mites confirmed the diagnosis. She was prescribed 5% permethrin cream to apply from head-to-toe (excluding the face) to dry, cool skin. Once the medication had dried, she was instructed to wear clean clothes, change the bedding and wash these items at 60 °C or higher. After 12 hours she was to bathe, change clothes and bedding again and repeat the same treatment after 7 days. All household members underwent the same treatment.

Discussion:

Family physicians are essential in the early diagnosis and treatment of scabies. Scabies causes pruritic lesions of the skin which can impact patient's quality of life. Education on transmission and hygiene is necessary for prevention. To prevent transmission it is necessary to machine wash all fabrics at a temperature over 50 °C. If not possible, fabrics should be kept in a plastic bag for 7 days, as the mites live only 3 days outside the host. Close contacts should be avoided. Prevention includes personal hygiene measures, especially in crowded spaces and limiting sexual partners. All close contact persons, including sexual partners from the past 2 months must be treated. First line of treatment is 5% permethrin cream, applied head-to-toe and remaining on the skin for 12 hours, with the treatment repeated after 7 days. Other recommended treatments include ivermectin orally 200 µg/kg or 10-25% benzyl benzoate lotion. For mass population treatment oral ivermectin is recommended.

Presentation on 06/03/2025 13:30 in "Lunch Break / Poster Session 5" by Veronika Vlašić.

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