# Creating a Healthier Future

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### The Institute's History



The Teaching Institute of Public Health "Dr. Andrija Štampar" has for 70 years been a dedicated leader and companion of the citizens of the city of Zagreb on the road towards the realization of health as "the state of overall physical, mental, and social well-being, and not just the absence of sickness and exhaustion". Today, it employs 447 experts of different backgrounds.

It was founded in 1949 under the name Hygiene Institute, and it acted as a professional and research institution for all issues related to hygiene and preventive medicine.

In 1961, the People's Committee of the City of Zagreb adopted a decision on the Health Care Institute of the City of Zagreb. By this decision, the Hygiene Institute was proclaimed an independent health institution acting as an independent institution organized on the principles of social self-management.

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The task of the Institute, as the decision reads, was to organise and implement a preventive health service, enhance public hygiene, study issues in the field of communal, industrial, and nutritional hygiene, harmonise the work of health institutions in the city to carry out general health measures and actions to protect national health, provide expert assistance in conducting preventive measures, and provide methodological guidance to health care institutions, to study and prevent infectious diseases and epidemics as well as diseases arising due to unhygienic living conditions. Furthermore, the task of the Institute is to study the health care problems of mothers, infants, pre-school and school children, and youth, study the problems of social diseases, organise work for raising health care awareness and participate in it, and collect, process, and analyse health care statistics data.

In 1994, the Health Care Institute of the City of Zagreb changed its name into the Public Health Institute of the City of Zagreb, then in 2008 into Public Health Care Institute "Dr. Andrija Štampar", and in 2014 in the Teaching Institute of Public Health "Dr. Andrija Štampar".

Our vision, as being one of the centres of medical excellence in the Republic of Croatia, is to be the best public health institution in the wider region, and our mission is manifested through providing services in the field of public health, while respecting the highest standards of socially responsible behaviour and science-based knowledge, and providing users with reliability and quality based on the principles of health excellence.

Today, we are the leading institution in the practice and services of the public health system of the Republic of Croatia. The activities of the Institute include public health, epidemiology, health ecology and environmental protection, clinical microbiology, school and university medicine, public health gerontology, addiction prevention, and protection of mental health. The Institute is also a teaching base of the Faculty of Medicine of the University of Zagreb and Zagreb University of Applied Health Sciences. We are an associate institution of the Faculty of Medicine of the University of Science, University of Zagreb, Faculty of Pharmacy and Biochemistry, University of Zagreb, Faculty of Medicine, Josip Juraj Strossmayer University of Osijek, Velika Gorica University of Applied Sciences, Zagreb High School of Medicine, and others, thus successfully carrying out our educational role in the community. Important here is also the international agreement with the Alma Mater University from Salzburg, a branch of the University of Maribor, for state-level gerontological public health activities. The Institute also collaborates with the aforementioned higher education institutions on ERASMUS and HORIZON 2020 programs. We are the highest rated health institution by the Croatian Agency for Science and Education, which is also supported by the fact that in 2018, the Institute published 191 scientific and professional papers.

The Institute has established cooperation with leading public health and scientific institutions in the Republic of Croatia: the Croatian Institute for Public Health and county-level institutes for public health, the Institute for Medical Research, the Croatian Veterinary Institute, the Ruđer Bošković Institute, the National Hydrometeorological Institute, and others; in Central and South Eastern Europe (Slovenia, Austria, Germany, Macedonia, Kosovo, Bosnia and Herzegovina, Serbia, and Montenegro), but also with the University of Botswana and the City of Kinshasa, DR Congo.

The Teaching Institute of Public Health "Dr. Andrija Štampar" has been recognised in its efforts to be ranked among centres of excellence. We are proud to bear the titles of the Ministry of Health's Reference Centres in the fields of health care for the elderly, rabies, pharmacoepidemiology, food safety testing, and diagnosis of sexually transmitted diseases. In 2013, the Ministry of Agriculture authorised the Department of Environmental Protection and Health Ecology as the Reference Laboratory for Mycotoxins in Food and Feed, in 2014 as the Reference Laboratory for the Implementation of Analyses for Determination of Honey Adulteration, and in 2019 as the Laboratory for Pesticides in Food of Vegetable Origins for Pesticides in Fruit and Vegetables, Cereals and Pesticide Testing by Individual Methods, which enabled the Institute to open a way for cooperation and networking with European reference centres in the food safety system.

Among the most important projects implemented by the Institute are: the establishment of the Food Safety and Quality Control - South East European Network, the Controlled Quality Label, the Food Safety and Quality Centre, GeroS - the Monitoring and Evaluation of Healthcare Needs and Functional Ability of Gerontological Insured Persons and Geriatric Patients, inseparably linked with

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the national health care system CEZIH, the Model of Nutritional-Gerontological Standards for Menus at the Homes for Elderly and the Gerontology Centre, Operating Procedure for Early Detection of Alzheimer's Disease, Pollen Forecast - an innovative mobile application for allergies developed by PLIVAzdravlje portal in collaboration with the Institute, the Eco-School within the ISO 14 001 Environmental Management System, etc.

Given that in Croatia it is currently impossible to establish by a scientific method the origins of food whose composition and quality are necessarily determined by their geographical origin, the Teaching Institute of Public Health "Dr. Andrija Štampar", in partnership with the Faculty of Agriculture, University of Zagreb, created the "Centre for Food Safety and Quality" project. Within the project, scientific research and analytical procedures will be carried out with the purpose of determining the origin of a given product/food, in accordance with the priorities set by the European Commission. This project, worth HRK 63 million, is co-financed by the European Regional Development Fund and, in the future, we plan for the project to grow into not only a national, but also the regional centre. The City of Zagreb invests great efforts in preserving and enhancing the state of the environment and sustainable development and in the improvement of the health and wellbeing of all citizens and future generations, and hence the Institute conducts a series of tests and continuously monitors the health safety of environmental factors for the purpose of assessing the impact on human health and the state of the environment. The Ecological Map of the City of Zagreb project is a basis for establishing a balance between the quality of the living environment, the health and living habits of citizens, and the spatial-functional structure of the city.

One of the most significant public health activities of the Institute is the initiative to establish the Food Safety and Quality Control - South East European Network (SEEN-FSQC), which is the first European organised group of public health, teaching and scientific institutions, faculties and laboratories.

The network is a non-governmental organisation that brings together regional institutes or public health institutes, faculties that in a way participate in the education and in the process of food production and distribution, scientific institutes and private laboratories from Croatia, Macedonia, Bosnia and Herzegovina, Montenegro, Kosova, Slovenia, and the Republic of Serbia.

The Network's task is to ensure common standards for the countries of South East Europe, while at the same time helping local food producers to be more competitive, both in local and international markets, and making joint actions regarding national legislation of individual countries, so as to keep the control truly independent, and the expert opinions fully uniform. Furthermore,

the task of the Network is to coordinate and create EU projects, relying primarily on the funds of the Regional Development Fund, as well as cooperation on ERASMUS + and HORIZON 2020 programs.

The main reasons for the establishment of the Network were promoted by an increased need to provide standardization, testing, and inspection supervision as a supportive pillar, and quality management (accreditation and certification), as the basis



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for working in the area of food safety. The purpose of the establishment of the SEEN FSQC Network is to promote the culture of food safety in production and market placement as the core code of behaviour of all stakeholders, harmonizing legislation in the area of food quality and safety, and promote preventive analyses during production and market placement of products. The planned activities of the Network are a thoroughly-thought-of expert answer to the current market needs and awareness-raising at the population level of the need for self-control as the safest, most ethical, and cheapest final option.

The tradition and significance of public health institutions in the area of Southeast Europe represent a key potential in strengthening the joint role of regional public health institutes, as well as other institutions and laboratories dealing with food safety and the development of their capacities. The networking of professional leaders enables a clearer establishment of conditions for standardizing public health care procedures in this cross-border region of Europe and provides a high level of contribution in the exchange of knowledge, education, and assistance to decision makers.

And last but not least, the Institute continuously conducts a series of public health activities, along with other important stakeholders, among which we emphasise: Change Habits and Start Health at Mt. Medvednica and in Maksimir Park, the humanitarian Zumbathon "Men Dance for Women" on the roof of the Museum of Contemporary Art in Zagreb, Maksimirski Minus Zwei Cener - the most beautiful race of the city of Zagreb in Maksimir Park, and many others.

## Department of Epidemiology



#### **Department of Epidemiology**



The Department of Epidemiology carries out the jobs of primary and secondary prevention of infectious and chronic non-infectious diseases. Based on the data collected, the Department plans and carries out monitoring of individuals and groups with high risk of developing diseases from both specified groups. Furthermore, the Department participates in the preparation and implementation of certain public health programmes in regular and extraordinary circumstances, and continuously conducts health education for the general population, paying special attention to education of vulnerable groups.

Within the competence of the Department, our experts propose and implement operational procedures to protect people's health in cases of hygiene-epidemiological indications, in accordance with the Act on the Protection of Population against Infectious Diseases and other regulations in the area of human health and environmental protection.

The Department conducts professional and scientific research in the domains of epidemiology and public health. In their work, the employees of the Department continuously cooperate with all relevant public health institutions in the City of Zagreb and beyond.

The Department's operations are carried out through the work of four Divisions. The Ministry of Health Reference Centre for Rabies also forms part of the Department.

The **Division of Infectious Diseases Epidemiology** monitors, records, and analyses the spatial spread of infectious diseases. Pursuant to positive legal regulations, the Republic of Croatia continuously conducts hygiene-epidemiological protective measures, with epidemiological analysis of the conditions in the Zagreb area and, if necessary, conducts anti-epidemic measures, either individual or collective. The Division monitors, analyses, and evaluates the implementation of the Compulsory Vaccination Programme, monitors the effectiveness of vaccination and the frequency of adverse effects.

The **Reference Centre for Rabies** carries out a range of activities in the field of anti-rabies protection of humans, and in that segment cooperates with numerous veterinary organizations and institutions and coordinates the work of county institutes of public health throughout the Republic of Croatia, while its employees participate in numerous professional, teaching, and educational activities.

The **Division of Chronic Non-Communicable Diseases Epidemiology** performs monitoring and epidemiological analysis of morbidity and mortality rates for selected priorities in the area of chronic non-communicable diseases (cardiovascular diseases, malignant diseases, etc.) and accordingly monitors and analyses the risk factors for their occurrence.

By conducting the Preventive Mobile Mammography Programme in the City of Zagreb, as well as national programmes for early detection of breast and colon cancer, we strive to get closer to citizens and contribute to the preservation of their health.

#### **Department of Epidemiology**

The **Division of Disinfection**, **Disinfestation and Pest Control (DDPC)** researches, monitors and controls insects and rodents that can pose a risk to human health by transmitting infectious diseases. The Division develops programmes of DDPC measures, conducts professional supervision as well as interventions of special interest for the City of Zagreb in the areas of disinfection, disinfestation, and pest control.

The **Division of Food Safety Systems**, in accordance with the legal framework, conducts training for persons working in the production and distribution of food, and also carries out the introduction, supervision, and implementation of the HACCP system.



## Department of Clinical Microbiology



#### **Department of Clinical Microbiology**



The work of the Department is carried out at two locations: at Mirogojska cesta 16 and in the Health Centre Centar–Novi Zagreb, at Remetinečki gaj 14. The Department has 60 employees, three of which have master's degrees and three PhD's, and 13 of them are medical doctors specialised in in clinical microbiology.

The Department's work fully meets the needs for microbiological diagnosis of outpatient patients in the City of Zagreb, so the activity is conceived so that samples can be processed in a single place regardless of the type of causal agent (bacteria, viruses, fungi or parasites).

Therefore, the activity is organised through the **Division of Urogenital Infections**, **Division of Respiratory, Skin and Soft Tissue Infections, Division of Sexually Transmitted, Blood-Borne and Systemic Infections, and the Division of Gastrointestinal Infections.** 

The Division of Molecular Microbiology was founded in 2004. It uses stateof-the-art amplification methods for the detection of various pathogens regardless of sample type. Different molecular methods for detection and genotyping of bacteria, viruses and parasites, such as qualitative and quantitative PCR, multiplex PCR, reverse hybridisation on tape and other methods are implemented.

In 2006 our Serology Laboratory became operational. Nowadays it is equipped with immunoanalyzers which can quickly process a large number of samples, and by detecting antibodies in a patient's serum sample, it is possible to indirectly make an etiological diagnosis of bacterial, viral or parasitic infections.

Along with the specified machine methods, in recent years the Department of Clinical Microbiology uses machine and automated methods in standard microbiological diagnostics, where devices such as MALDI-TOF, a device for automated preparation staining and a device for automated antibiogram reading, significantly reduce clinical samples processing time.

The Division of Microbiological Media and Sterilization prepares media for the needs of the Department of Clinical Microbiology and the Department of Environmental Protection and Health Ecology and carries out decontamination, sterilization and sterilization control for external users.

Improving the availability of microbiological diagnostics is one of the strategic goals of the Department. With the implementation of a new computer program, the prerequisites for electronic receipt of medical referrals and sending results have been met, which has significantly reduced the required time to issue the results. In addition to basic diagnostic and consultancy services, the Department's tasks also include prevention activities and programmes. As part of these activities, the Department cooperates with other departments of the Institute and fosters a multidisciplinary approach, particularly in the field of reproductive health protection, sexually transmitted and blood-borne disease prevention (with a focus on vulnerable groups: pregnant women, young people, addicts, chronic patients, elderly people etc.).

Thanks to its excellence in the field of diagnostics of sexually transmitted diseases, in 2016 the Department was named Ministry of Health Reference Centre for Diagnosis of Sexually Transmitted Infections.

The Department also monitors antibiotic sensitivity and resistance, on the basis of which it provides recommendations for empirical treatment of infectious diseases. In addition, the Department of Clinical Microbiology has a significant educational role, educating both health professionals and citizens of the City of Zagreb – three staff members are professors at the School of Medicine of the University of Zagreb, and four of them teach at the University of Applied Health Sciences in Zagreb. Department of Environmental Protection and Health Ecology

#### Department of Environmental Protection and Health Ecology



Since 2003, the Department of Environmental Protection and Health Ecology has had the competence under the requirements of HRN EN ISO/IEC 17025:2007 for the following fields: testing of food, animal feeding stuffs, wine, alcoholic beverages, consumer goods, water, microbiological cleanliness of facilities, waste, soil, sludge, eluates, air, and construction products. Additionally, methods are also accredited for sampling food, soil, water, sludge, waste, and air. In total, more than 350 methods have been introduced, of which 60% are accredited. About 1,500 parameters are examined in the Department's laboratories.

The Department is accredited in the flexible scope for 35% of methods, which gives it the opportunity to meet customer requirements faster, due to the possibility of changing the matrix, analyte, and range for the accredited area.

The Department's services are:

**Water Safety and Quality Division** (Laboratory for Potable, Surface, Swimming -Pool and Ground Waters, Laboratory for Microbiological Analysis of Waters, Wastewater Laboratory, and Laboratory for Sanitary Machinery)

**Division of Food and Consumer Goods Safety and Quality - Ministry of Health Reference Centre for Food Safety Analysis** (Laboratory for Chemical Analysis of Food, Laboratory for Items that Are in Direct Contact with Food, and Laboratory for Consumer Affairs)

**Division of Food and Consumer Goods Microbiology** (Laboratory for Microbiological Analysis of Food, Laboratory for Microbiological Analysis of Consumer Goods, and Laboratory for Microbiological Analysis of Air)

**Division of Living and Working Environment** (Laboratory for Air, Noise and other Microclimatic Conditions, Aerobiology Laboratory, Soil and Waste Laboratory, and Ecotoxicology Laboratory)

**Division of Joint and Confirmation Analytical Methods** (Laboratory for Liquid Chromatography and Mass Spectrometry, Laboratory for Gas Chromatography and Mass Spectrometry, Laboratory for Atomic Spectroscopy and Mass Spectrometry, Reference Laboratory for Mycotoxins, and Reference Laboratory for Pesticides of the Ministry of Agriculture)

**Division of Risk Assessment and Logistics** (Service for Reception and Preparation of Samples and Issue of Analytical Reports, Service for Compliance Assessment, and Laboratory for Emergency Situations, Laundry and Sterilization).

The Department's employees have the scientific, professional, and technical backgrounds needed for working in compliance with internationally accepted guidelines. Continuous cooperation with local and international laboratories is carried out with the aim of improving analysis, and thus protecting the health of citizens.

The Croatian Accreditation Agency has approved a series of accredited methods from a fixed and flexible scope (Certificate and Annex to Accreditation Certificate 1040), while the accredited scope is extended in accordance with the needs of service users and the expert assessment of the Department's experienced employees.

The main role of the Department is the care for human health through the study of the impact of environmental factors in the living and working environment on the health of the population. Therefore, the Department performs complex tests of the health and quality of food samples, consumer goods, and potable water, as well as other samples from the environment, such as air, wastewater, soil, and waste. In addition to the above tests, the chemical and biological factors in the working environment are also being tested and risk assessments made for workplaces. The Department participates in emergency procedures in cooperation with the National Protection and Rescue Directorate and the Municipal Emergency Management Office, with the aim of preventing, monitoring, and enhancing the health of citizens and preserving the environment where people reside.

The Department's Laboratories are involved in scientific research projects, annual monitoring of the Ministry of Health, the Ministry of Agriculture, the Croatian Food Agency (HAH), and the Municipal Office for Health of the City of Zagreb. They form part of the teaching base of Zagreb Healthcare High School and the Faculty of Pharmacy and Biochemistry of the University of Zagreb.

The Department of Environmental Protection and Health Ecology carries out the following projects:



The "**Centre for Safety and Quality of Food**" project (KK.01.1.1.02.0004): project beneficiary Teaching Institute for Public Health "Dr. Andrija Štampar", project partner University of Zagreb, Faculty of Agriculture.



The project was co-financed by the European Union's European Regional Development Fund, Operational Program Competitiveness and Cohesion 2014-2020 as part of a call for proposals for the "Investing in





Europska unija Zajedno do fondova EU

Organizational Reform and Infrastructure in the Research, Development and Innovation Sector" project.

The total value of the project is HRK 63,873,759.00, and the amount of the grant is HRK 61,303,629.00. The period for project implementation is from 1 October 2018 to 1 October 2022.

Improving Allergy Risk Assessment Strategy for New Food Proteins (ImpARAS) COST Action FA1402

Innovative procedures for the removal of AFM1 by biofixators from milk - Croatian Science Foundation Project, research project (IP-06-2016) – ending on 01 March 2019 (project leader Faculty of Food Technology and Biotechnology, Department as partner)

#### Completed projects:

"Citrine and aristolochic acid as contaminants of cereals and potential causes of endemic nephropathy" project in 2018; project leader Croatian Food Agency, partnering with the Department of Environmental Protection and Health Ecology

COST program, participation in the FA1203 COST Action "Sustainable management of Ambrosia artemisiifolia in Europe (SMARTER)"

2015-2016 "Frequency of type 2 diabetes mellitus in the Croatian population as a consequence of chronic arsenic exposure" scientific project, scientific cooperation with the Institute for Medical Research, Croatia - Germany bilateral project

ES0603 COST Action: Assessment of production, release, distribution and health impact of allergenic pollen in Europe (EUPOL)

2010 to 2014 Glutathione S-transferase and superoxide dismutase in etiopathogenesis (006-0061245-0010) project, the project was approved by the Ministry of Science, Education and Sports

PHARE 2006: "Development of a hazardous waste management system, including the identification and management of the sites highly polluted with hazardous waste ('hot spot sites') in the Republic of Croatia"

Revitalization of local varieties of buckwheat for growing on family farms in north-western Croatia (with the Faculty of Agriculture of the University of Zagreb, the project was financed by the Ministry of Agriculture)

Endemic nephropathy in Croatia, epidemiology, diagnostics, and etiopathogenesis, project leader, prof. dr. sc. Bojan Jelaković - participants in the project

# Public Health Department



#### **Public Health Department**



The Department carries out health protection in the area of public health. Its work focuses on assessing the health status of the population, developing health indicators, assessing health care needs, identifying public health issues and selecting priorities for interventions, developing plans and programmes for health protection measures, developing and monitoring health care quality indicators, implementing preventive health care measures, particularly primary prevention and implementation of health education of the population.

The main activities can be grouped into two areas: 1) assessment of the health status and needs of the population, and 2) public health intervention, including health promotion and disease prevention.

The Department's interdisciplinary team consists of a physician specialised in public health, a senior nurse, a graduate food technology engineer – nutritionist, a professor of kinesiology, and a professor of educational rehabilitation.

By collecting and processing health data and indicators, the Department publishes the annual publication Health Statistics Yearbook of the City of Zagreb, as a valuable contribution to and presentation of the health status of the citizens of our beautiful city.

Health promotion activities focus primary on disease prevention and improving the health of the general population, population groups and individuals, and are based on defined public health priorities. Public health campaigns aimed at promoting healthy lifestyles are conducted, expert lectures are held, texts related to health promotion are published, thematic interactive workshops are organised and conducted in schools, and media and other communication channels are used to give advice on health improvement and disease prevention.

Services of the Unit for Preventive Medicine include medical examination and counselling, anthropometric measurements analysis, biochemical analyses, counselling by nutritionists and kinesiologists. The Unit's goal is to develop and improve an individual preventive approach.

The Public Health Department carries out numerous projects and programmes.

#### Programmes and programme partnership:

"Health improvement for members of the Roma national minority" – a programme to motivate and educate members of the Roma national minority to adopt and maintain healthy lifestyles and lay a foundation for the healthy reproductive and sexual life of girls and women, with the aim of increasing quality of life and preventing disease emergence. The programme is conducted with the support of the City Office for Health of the City of Zagreb. Workshops programme "Adopting Healthy Habits" – a series of interactive health promotion workshops conducted in schools and libraries: "Your Body Is Created to Move", "A Plate of Health", "Sun Protection", "How to Identify Emotions", and "YES to love, NO to violence".

Anti-stigma programme "**We Accept Diversity**" with the aim of reducing stigmatization and prejudice about children with developmental, as well as people with disabilities in general. The programme is carried out with the support of the City Office for Social Protection and People with Disabilities.

The national programme "**Healthy Living**" focuses on improving the health of the entire population by acting within the local community, with the aim of informing, educating, and sensitising citizens of all ages about the positive aspects of healthy lifestyles. The programme is organised by the Croatian Institute of Public Health.

**Fitness Index** – a project for health-oriented physical exercise as a key factor in the prevention of chronic non-communicable diseases (Erasmus+).

**Nordic walking – Healthy living** – the project is carried out in cooperation with the Zagreb Federation for Sports Recreation "Sport for All" (Erasmus+ Sport).

**Preventive examinations for recreational athletes** – the project is carried out in cooperation with the Zagreb Federation for Sports Recreation "Sport for All".

**Education for Health and Quality of Life** – lectures and workshops on the prevention and treatment of excess body weight and obesity. The programme partners are the Association for Prevention of Excessive Body Weight, the City of Zagreb, and the Andrija Štampar Teaching Institute of Public Health.

**The National Cervical Cancer Screening Programme** – the aim of the programme is to reduce the incidence of invasive cervical cancer and reduce mortality. The programme is organised by the Croatian Institute of Public Health.

## Department of School and Adolescent Medicine



#### **Department of School and Adolescent Medicine**



Through its divisions, the Department of School and Adolescent Medicine carries out the activities planned by the Program for Specific and Preventive Measures for the Health Care of Students of Primary and Secondary Schools and Regular Students in the city of Zagreb: physical examinations, screenings, targeted examinations, establishing appropriate education forms and curricula, examinations for determining health conditions and ability for attending physical and health culture education, student vaccination, health education, examinations and anti-epidemic interventions during the onset of infectious diseases in school, counselling for children, young people, parents, and teaching staff, active care of children with disabilities during schooling, and educational and professional guidance of students with health issues.

The divisions of the Department of School and Adolescent Medicine dealing with children and young people meet the criteria and requirements of the World Health Organization and are open, accessible, available, and effective. They operate on the principles of fairness, with guaranteed confidentiality.

The Department of School and Adolescent Medicine has a total of 37 teams deployed at 15 locations in the city of Zagreb and cares for 169,664 students. People working in the Department are specialists in school medicine and nurses at the baccalaureate level.

### The Department's work is organised through four divisions:

#### **Division for Protection of Student Health**

**Division for Growth and Development Monitoring Division** 

#### Youth Unit

#### Division for Monitoring Schoolchildren and Adolescents with Health Problems in Educational System

The basic tasks of the Department are early detection and recognition of diseases and disorders, prevention of risk and socially unacceptable behaviour, development of responsibility for own health, adoption of healthy lifestyles, protection of mental health (especially in relation to school and school environment), and protection of reproductive health, including responsible sexual behaviour and preparation for parenting.

It is important to highlight the counselling services in the Division for Schoolchildren and Adolescent Medicine, which take place as individual counselling sessions, with the use of psychotherapy techniques and procedures or through counselling conversation. The counselling work takes place in the mandatory separate and advertised counselling time, for the purpose of helping and solving the fundamental problems encountered by children, adolescents, their parents, guardians, and teachers: adapting to school, failure at school, problems of development and maturation, behavioural disorders, chronic health disorders, protection of reproductive health and family planning, and mental health problems. The Youth Unit offers specialist counselling related to three areas of young life - sexual health, nutrition, and mental health.

Along with regular preventive measures, the Department of School and Adolescent Medicine also conducts additional programs for improving the health of children and young people. In co-operation with the Municipal Healthcare Office of the City of Zagreb, it has conducted the "Prevention Program for the Diseases Caused by HPV" for twelve years.

## Department of Public Health Gerontology



#### **Department of Public Health Gerontology**



The Department of Public Health Gerontology, which is also the Ministry of Health Reference Centre for Health Protection of the Elderly, is the leading institution for gerontology–public health activity in Croatia.

The Unit carries out tasks in four main areas of gerontologic–public health activity through the Section/Centre for Geriatric Healthcare and the Section for Geroprophylaxis and Promotion of Active and Healthy Aging:

 Monitoring, studying, evaluating, planning, creating projections and reports on the health needs and functional abilities of the elderly of a young old (65–74 years), middle old (75–84 years), and very old age (85+) at the level of counties, the City of Zagreb, and the Republic of Croatia;

- Co-ordination, vocational-methodological assistance, training, and re-training of the providers/co-providers of health care and health protection of the elderly in institutional and extra-institutional care for the elderly; permanent training in gerontology, geriatrics, and geriatric health care through gerontological forums, gerontological courses, schools, workshops, creative workshops, congresses, and symposia with an interdisciplinary gerontological approach;
- Preparation, evaluation, planning, proposing programmes/standards of health measures and procedures in the health protection of the elderly and the basic geroprophylactic measures programme of primary, secondary, tertiary, and quaternary prevention with guidelines for active, healthy, and productive aging and the development of gerontology– public health standards and guidelines;
- 4. Scientific research and publication activity in the area of gerontology– public health.

The most significant projects in which the Unit is the holder, a partner, or an associate partner:

- 1. Sustainable integrated care models for multi-morbidity: delivery, financing, and performance SELFIE (ID SEP-210142560);
- Cross-border cooperation programme INTERREG V-A Slovenia–Croatia "CrossCare HomeCare";
- Quality of life and health protection promotion programme for retirement home residents – continuation of the programme that started in 2017;
- 4. Care improvement programme for persons suffering from Alzheimer's disease and other dementias;
- Health, cultural, and biological determinants of longevity: an anthropological study of survival rates in very old adults – HECUBA (IP-2018-01-2497);

#### **Department of Public Health Gerontology**

- Successful aging model longevity characteristics in retirement home residents;
- Prevalence and molecular epidemiology of emerging and re-emerging neuroinvasive arboviral infections on the territory of Croatia (HRZZ IP-2016-06-7456);
- 8. New and neglected viral causal agents of respiratory infections in vulnerable groups of patients (HRZZ IP-2016-06-7556) 2017–2021;
- 9. Four levels of geriatric health care with nursing documentation and Protocol for general practice/family medicine in a retirement home;
- Project Carewell for Zagreb Region (EU ICT PSP CIP) / Health Centre Zagreb–Centre, 2016–2020;
- In cooperation with Alma Mater Europea the European Academy of Sciences and Arts in Salzburg, and Alma Mater Europea – Slovenia, the Unit participates in the European doctoral study programme "Social Gerontology";
- 12. European Innovation Partnership on Active and Healthy Ageing, EIP on AHA Reference Site, Zagreb;
- Implementation of the NRS 2002 web service nutrition screening for the monitoring panel of family medicine physicians/Croatian Health IT Centre - CEZIH;
- 14. Creating a design model of nutritional gerontological standards (GeroS/ CEZIH) for menus in retirement homes and gerontological centres.

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Department of Mental Health and Addiction Prevention



#### **Department of Mental Health and Addiction Prevention**



The Department of Mental Health and Addiction Prevention at the Andrija Štampar Teaching Institute of Public Health carries out the activities of mental health protection, addiction prevention, and outpatient addiction treatment.

All activities are carried out through the promotion, prevention, and treatment of mental disorders and addictions. Prevention is carried out based on universal, selective, and indicated principles, and treatment is conducted according to medical indications, in accordance with contemporary medical knowledge, based on scientific evidence using a multidisciplinary and personalised approach.

There is an existing good practice of multi-sectoral cooperation with health care, educational and judicial institutions, as well as with those in the social
protection system, while cooperation with the non-governmental sector also continues.

The Department's work is organised through three Divisions/Units at three locations.

### Unit for Child and Adolescent Mental Health Care

Locations:

- Remetinečki gaj 14 (tel. 01 38 30 088; office hours: Mondays, Wednesdays, and Fridays 8 am–4 pm; Tuesdays and Thursdays 12 pm–8 pm);
- Heinzelova 62a (tel. 01 64 68 340; office hours: Mondays and Wednesdays 12 am–8 pm; Tuesdays, Thursdays, and Fridays 8 am–4 pm).

Child and adolescent care covers the ages of 12 to 25 and is organized in a way that matches that age range and lifestyle.

The protection of children's mental health primarily focuses on prevention and only then on treatment. Care is multidisciplinary (psychiatrists, psychologists, social workers/pedagogues, nurses), multimodal (inpatient, outpatient, individual/ group/family, psychosocial interventions/psychotherapy/pharmacotherapy) and frequently multi-sectoral (social welfare centres, dormitories, juvenile detention centres, professional services within schools, judicial bodies).

Areas of action include the promotion of mental health in schools and reducing stigmatisation, parenting support, care for groups at increased risk of mental disorders, prevention of substance abuse, prevention of violence, depression, and suicide.

Preventive activities are carried out on universal, selective, and indicated principles. The Department also conducts numerous preventive activities. Within the mental health promotion programme on the Department's social network profiles (Instagram and Facebook profile 'Mentalisti'), young people can read interesting content; a programme called 'Fostering professional competences' has been implemented in schools, and parenting support is carried out under a special programme entitled 'Evening School for Parents', while fostering adolescents' skills is conducted under the title 'I've Grown up and Now What?'.

In the case of young people at high risk (experimentation with psychoactive substances, emotional difficulties, low self-esteem, anxiety, stress and trauma, adaptation difficulties, school failure, behavioural issues, excessive and inappropriate use of computer content), in order to prevent the development of mental disorders, various psychosocial interventions are conducted, while in cases of developed mental disorders, an individualised treatment approach based on medical indications is used to prevent chronification.

### Unit for Adult Mental Health Care

Locations:

- Mirogojska cesta 11 (tel. 01 38 30 066; office hours: Mondays, Wednesdays and Fridays 8 am–4 pm; Tuesdays and Thursdays 12 pm–8pm);
- Remetinečki gaj 14 (tel. 01 38 30 088; office hours: Mondays, Wednesdays and Fridays 8 am–4 pm; Tuesdays and Thursdays 12 pm–8 pm).

The Unit offers a multidisciplinary and personalised approach to everyone who asks for help due to mental health problems.

Mental health protection and promotion encompasses a range of activities including mental health promotion, prevention and treatment of mental disorders in adults, which includes processing and diagnostics, as well as treatment plans.

Counselling and/or psychotherapy is offered through individual, family, partner, or group sessions.

In accordance with World Health Organization (WHO) guidelines and the definition of mental health as 'a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community' (WHO, 2001), the focus in the case of middle-aged people is on increasing resistance and stress-response mechanisms in order to increase the level of functionality and quality of life by training skills. On the Facebook profile 'Mentalisti', one can read interesting mental health-related content and get answers to all queries.

Help is also provided to people suffering from emotional difficulties related to changes in their general health state or life circumstances as well as people with chronic physical diseases who require psychiatric treatment or psychotherapeutic support for a successful recovery.

Special attention is also paid to the mental health of the elderly in the form of help and support for accepting the ageing process.



Treatment of mental disorders in older people also includes care of their family members and informal carers.

### Division for Prevention of Addiction

Location: Mirogojska 11 (tel. 01 38 30 066; office hours: Mondays, Wednesdays, and Fridays 8 am–4 pm; Tuesdays and Thursdays 12 pm–8 pm)

The Division for Prevention of Addiction carries out the activity of protection of metal health, prevention and outpatient treatment of addiction in accordance with laws, strategic documents, and professional guidelines. All activities take place through the promotion, prevention, and treatment of addictions. We deal with substance abuse (psychoactive substances) and behavioural addictions (gambling and the internet).

Prevention is carried out based on universal, selective, and indicated principles, and treatment is conducted according to medical indications, in accordance with contemporary medical knowledge, based on scientific evidence using a multidisciplinary and personalised approach.

Outpatient addiction treatment with a family approach represents a combination of pharmacotherapy (according to medical indications) and psychotherapy, i.e. psychosocial interventions, and it has proved to be the most successful for the patient and their family. Part of the treatment are also urine tests for psychoactive substances and saliva screening tests for HCV and HIV.

The treatment program is individually customised for the user of the service according to professional guidelines. There is an existing good practice of multi-sectoral cooperation with health care, educational and judicial institutions, as well as with those in the social protection system, while cooperation with the non-governmental sector also continues.

# Research and Teaching Department



### **Research and Teaching Department**



The Research and Teaching Department promotes, organises, and coordinates scientific-research work and teaching in the Institute, and promotes interdisciplinary science projects from the field of public health, health care, and related fields, all aiming at studying factors of health preservation based on population characteristics, but also individual characteristics and environmental factors. It helps individuals in planning and implementing projects, either in selecting methodology or looking for (financial and tangible) resources.

The Department regularly publishes the results of scientific research and it invests its efforts towards applying the results achieved, which it presents through the organisation of scientific conferences, and professional and thematic lectures.

### The Research and Teaching Department consists of:

- The Division of Teaching, Publishing and Informing
- The Division of Research, Pharmacoepidemiology and Pharmacoeconomics

   the Ministry of Health's Referral Centre for pharmacoepidemiology

The Teaching Division organises teaching in the Institute, which involves keeping records and coordinating teaching cooperation at the pre-diploma, diploma, and postgraduate levels. The Division promotes publication activities and regularly publishes the Collection of Papers (Pregled Radova) publication, which contains the abstracts of scientific and professional papers of the Institute's staff. Also active within the Division is the Library, which keeps specific periodicals. The Institute is a member of the academic and research network CARNET. The Division also keeps evidence of the scientists employed in the Institute's media strategy for the current year and coordinates the Institute's experts and media representatives.

The Division of Research, Pharmacoepidemiology and Pharmacoeconomics helps in preparing research, oversees the research compliance with ethical principles in conducting studies, and helps in analysing, processing, and evaluating research results. The Division helps in preparing project documentation for project applications.

This Division coordinates the work of the Referral Centre for the protection of health of the elderly, the Referral Centre for Rabies, the Referral Centre for Pharmacoepidemiology, the Referral Centre for Analysis of Food Safety and the Referral Centre for Sexually Transmitted Diseases. The Division conducts pharmacoeconomic analyses of individual medicines and medicinal products, which is a prerequisite for their inclusion in the basic and additional list of medicines of the Croatian Health Insurance Fund.

### Centre for Pharmacoepidemiology – the Ministry of Health's Referral Centre for Pharmacoepidemiology

On 20 June 2008, the Institute was appointed the Ministry of Health's Referral Centre for Pharmacoepidemiology. The tasks of the Referral Centre are to promote safe and efficient pharmacotherapy, to encourage patients to proper adherence to therapy, to provide consultations to citizens and institutions on pharmacoepidemiology, various areas of pharmacotherapy (e.g. the area of medicines in pregnancy, pharmacogeriatrics, and similar), pharmacoeconomics, observational trials and planning of clinical trials, to conduct round tables, issue publications, and publish professional and scientific papers.

For many years, we have been organising on each second Wednesday of the month the professional gatherings "Medicines and..." ("Lijekovi i..."), which take place in the Institute's Great Hall.

The Referral Centre has introduced a new method for measuring adherence to therapy: "Čulig Scale for Measurement Adherence to medication" (the Čulig scale). Introduced for the first time in the Republic of Croatia, the Čulig scale has become a globally recognised tool.

The employees of the Division and the Referral Centre participate in the international scientific project CA COST Action CA15208 Rationing Missed Nursing care: An international and multidimensional problem, Cyprus University of Technology, Limassol, Cyprus.

## Integrated Management System Centre



#### **Integrated Management System Centre**



The Integrated Management System Centre plans, implements, monitors, and continually improves numerous activities for the purpose of meeting the requirements of six international management system standards, according to which the Andrija Štampar Teaching Institute of Public Health is certified and accredited: ISO 9001, ISO 14001, OHSAS 18001, ISO/IEC 17025, ISO 15189, an ISO/IEC 17065.

The Institute is an institution with an established integrated management system and we present our system to the public as the 'Štampar Model'. The Centre coordinates the work of quality management representatives for other services, enhancement teams, continuously conducts internal training for certification and accreditation, and plans and conducts internal audits in accordance with the requirements of the standards. Adhering to the required documentation is the basis for raising awareness about the importance of the

roles of all employees in business processes, for achieving satisfaction of the users of the Institute's services, and satisfaction of the employees themselves.

The Centre's work ensures realisation of the general objectives of the Institute's business operations:

- to be the leader in the Republic of Croatia in the development of the integrated quality management system, environmental protection, occupational health and safety in public health institutions according to the requirements of international standards ISO 9001, ISO 14001, and OHSAS 18001;
- to promote excellence in the application of good professional practice in the Institute's testing and medical laboratories accredited by the Croatian Accreditation Agency (HAA), according to ISO/IEC 17025 and ISO 15189;
- to be Croatia's first Institute for Environmental Certification in accordance with the requirements of ISO/IEC 17065.

The Integrated Management System Centre developed from the independent function of quality assurance in the testing laboratories at the Department of Health Ecology and Environmental Protection, which has existed in the Institute since 2000. In 2003, the Institute was one of the first in Croatia to be accredited under the ISO/ IEC 17025 Standard.

A well-established foundation of the quality assurance system in laboratories served to introduce and certify in 2014 an integrated quality and environmental management system according to the ISO 9001 and ISO 14001 stand-



ards. With experience from testing laboratories, the medical laboratory for molecular microbiology was accredited in 2015 under the ISO 15189 Standard.

The existing system was upgraded with the occupational health and safety system, certified in 2016.



Complying with the Eco-Schools international programme as developed by the Foundation for Environmental Education (FEE), the Eco-School was implemented in the environmental management system.

Today, Eco-Schools are conducted in around 60 countries around the world and connect more than 46,000 schools. The Eco-School national coordinator in the Republic of Croatia is the Lijepa Naša association.

With continuous development of the quality management system, further accreditations have been introduced:

- In 2017, the Department of Clinical Microbiology's Division of Microbiological Media and Sterilisation introduced the accreditation under the ISO/IEC 17025 Standard.
- The Andrija Štampar Teaching Institute of Public Health, Integrated Management System Centre, Product Certification Body has been accredited since 2018 under the HRN EN ISO/IEC 17065 Standard for environmental certification in the area of Raw or Unprocessed Products

   Plant Production. The Andrija Štampar Teaching Institute of Public Health has been authorized by the Ministry of Agriculture to carry out the work of auditor for the implementation of professional control in organic production and has been assigned code number HR-EKO-11.

#### Other applicable standards:

- ISO 9004:2018 Quality management Quality of an organization Guidance to achieve sustained success
- ISO 31000:2018 Risk management

Information on valid certificates and quality certificates is posted on the Institute's website (www.stampar.hr):

- ISO 9001:2015 certificate Quality management systems
- ISO 14001:2015 certificate Environmental management systems

- OHSAS 18001 certificate Occupational health and safety management systems
- Accreditation certificate HRN EN ISO/IEC 17025:2007 General requirements for the competence of testing and calibration laboratories, no. HAA 1040
- Accreditation certificate HRN EN ISO 15189:2012, Medical laboratories Requirements for quality and competence (HAA), no. HAA 7484
- Accreditation certificate HRN EN ISO/IEC 17025:2007 General requirements for the competence of testing and calibration laboratories, no. HAA 1590
- Accreditation certificate HRN EN ISO/IEC 17065:2013 Conformity assessment – Requirements for bodies certifying products, processes and services, no. HAA 3593
- Eco-School certificate applicable from 2016

With the utmost respect for requests from the users of the service, the Andrija Štampar Teaching Institute of Public Health seeks to continuously improve the efficiency of its employees. The Institute organizes and promotes multidisciplinary teams to improve the quality of business operations in order to achieve total quality management (TQM), according to the 'Štampar Model'.

The Centre's motto is:

### 'Quality begins and ends with training in systematic work. All employees of the Institute are involved in training on quality.'

This method of the Institute's operation opens up opportunities for more effective connections with institutions in Croatia and the region, in order to exchange experiences on implementing a business management system based on excellence models through total quality management (TQM).

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### *Creating a Healthier Future*



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