

Adulteration of products and sustainable development: European experience in dealing with the problem.

SUBSTANTIATION

We all like to enjoy our food. Herbs and spices add flavour and aroma enhancing taste sensations. All in order to make the moment of the meal as pleasant as possible.

On the other hand, not everything that makes food tasty is useful for the digestive system and the health of the body as a whole. Besides traditional ingredients, manufacturers often add a lot of supplements to food products. Milk with melamine, caviar with gelatin, meat with antibiotics, sausage with guar gum, ice cream with vegetable fats, chocolate icing with little chocolate — all this ends up on the tables of consumers and it is called adulteration. Indeed, Ukrainian producers sometimes intentionally replace the food substances with undeclared alternative ingredients or remove some valuable components. This way they lower the cost or increase the quantity of the products. Without any doubts, this act impacts consumers and goes against the public interests and legislative regulations.

On top of that, we have another problem - consumption of non-prescription "medical" products, which are far from real medical drugs. You can hear their aggressive ads all the time on radio and TV. Such practices deprive population off their earnings. This is especially true for older generation with lower education status. To our judgement, the problem is severe. Estimates suggest that a very substantial part of pensions goes to drug stores to buy drugs which are not real medical products. Besides the potential impact to the health and safety of patients, falsified medical products can also have a negative impact on the pharmaceutical industry, healthcare system, and economy. To combat the issue, European governments and organizations have implemented regulations and guidance to ensure the safety and quality of medical products. Therefore, in Ukraine we do not need to invent a new way of facing the problem – what we need is to study the European experience and ensure penetration of the best European policies and practices to wide cohort of stakeholders in Ukraine.

This all has a profound negative impact on the prospects of sustainable development. Adulterated food products often contain low-quality ingredients, which make them unhealthy and detrimental to human health. Additionally, food adulteration often involves the use of chemicals, toxins, and other artificial ingredients, which can contaminate the environment, leading to air and water pollution. This in turn leads to the destruction of natural habitats, reduced access to clean water and other environmental issues, all of which hinder sustainable development.

RELEVANCE

Food adulteration occurs globally and, in many ways, affects almost all food commodities. One form of adulteration is an addition of another substance to a food item in order to increase the quantity of the food item in raw form or prepared form, which results in the loss of actual quality of food item. These substances may be either food items or non-food items. Examples of fraud include melamine in milk, carcinogen colorants in foods, dilution of fruit juices, species swapping of seafood, unauthorized repackaging, tax-avoidance smuggling, or the sale of stolen goods [1].

On the other hand, medicinal products also have similar issues. Until recently, the most frequently falsified medicines in wealthy countries were expensive 'lifestyle' medicines, such as hormones, steroids and antihistamines. In developing countries, they also include medicines used to treat life-threatening conditions such as malaria, tuberculosis and HIV/AIDS.

The phenomenon of falsified medicines is on the rise, with more and more medicines now being falsified. These include expensive drugs, such as anticancer medicines, and medicines

in high demand, such as antivirals. Luckily, in the EU the issues of the falsified medicines have been brought under control and the strict authorisation procedures carefully evaluate quality, safety and efficacy of the products before they enter the market. Often, because of their threat to human health, such products are forbidden [4]. In Ukraine, however, excessive use of non-prescription medical drugs still remains a big problem. To date, an ongoing medical reform does not adequately deal with the situation of the uncontrolled consumption of medicines without a doctor's prescription. Excessive drug abuse causes addiction and brings significant profits to the pharmaceutical industry at the cost of lives of the people.

Speaking about food adulteration, we have several reasons to explain what leads to the current state. First, it relates to the transition to a market economy, the privatization of manufacturing and the sale of goods in Ukraine. This led to a rapid increase in the number of independent enterprises, which has resulted in a weakening of state control and supervision over the quality and safety of products. On the other hand, this was due to a sharp reduction in the number of cattle and pigs and instability of their weight condition; as well as deviations in the quality of meat raw materials, which complicate its industrial processing. This problem currently concerns not only Ukraine but the world as a whole.

Importantly, the EU countries operate a coordinated system of food quality control based on standards such as the food fraud network (FFN), the Rapid Alert System for Food and Feed (RASFF), codex alimentarius etc. Their guidelines and codes of practice contribute to the safety, quality and fairness of this international food trade. Consumers in Europe can trust the safety and quality of the food products they buy, while the importers can trust that the food they ordered will be in accordance with their specifications. European legislation strictly regulates the quality of food and medicines and enforces its implementation [2,3,5]. The coordinated action aims to assess the state of and enforce application of EU rules while establishing the prevalence of certain hazards across the EU. Whereas Public concerns about food safety issues often place Codex at the centre of global debates. Veterinary drugs, pesticides, food additives and contaminants are some of the issues discussed in Codex meetings. European standards are based on sound science provided by independent international risk assessment bodies or ad-hoc consultations organized by FAO and WHO. In Ukraine, on the contrary, violations of established hygienic requirements are often not detected and not controlled. Moreover, the problem of falsification remains unresolved due to a lack of understanding and non-compliance with European norms and rules.

The general objective of this Module project is to enhance penetration of European principles of the Achievement of promotion (popularization) of a healthy lifestyle of Ukrainian. We postulate that in order to solve the current problems it is necessary to unite researchers and practical experts who specialize in issues of epidemiology, microbiology and dietetics together with the professionals in assessing the state of health of the population and the factors that affect it. This has to promote implementation of measures aimed at preserving health from the point of view of their impact on the preservation of the health of the population.

- 1 <https://www.sciencedirect.com/science/article/pii/B9780123786128003000?via%3Dihub>
- 2 https://food.ec.europa.eu/safety/eu-agri-food-fraud-network_en
- 3 https://food.ec.europa.eu/safety/rasff_en
- 4 <https://www.ema.europa.eu/en/human-regulatory/overview/public-health-threats/falsified-medicines-overview>
- 5 https://en.wikipedia.org/wiki/Adulterated_food