



# WORKSHOPS

## 1.1 Sustainability in Pharmaceutical Industry – current and future challenges

### Sandra Lopes Guerreiro

*Global Quality, Health Safety & Environment Director at ESTEVE*

Sustainability is a word since long used to describe the role of the pharmacists in the pharmaceutical industry. Due to a robust technical and scientific background, pharmacists have always worked in areas like quality, regulatory, pharmacovigilance or clinical trials, assuring that the good practices standards were met, the patient safety secured and the company reputation protected. Pharmacist's skills have evolved over years, with more and more pharmacists doing roles in marketing, supply chain, market access and leadership positions like CEO.

With the climate change and the pledge to save the planet, the pharmacist's mission has to evolve to protect another element: the Environment. Sustainable molecule research, sustainable packaging development, responsible waste management and secure sustainable value chain are only a few examples of areas where the pharmacists can play a key role into the pharmaceutical companies' mission and fight climate change.

Lack of sustainability-related expertise and talent, is leading to differentiated employability benefits for roles who can contribute to meet sustainability targets, opening an opportunity for pharmacists. Pharmacists are well-respected profession and have a role as educators. Not limited to pharmaceutical companies and respective suppliers, but in society overall, where education should start from early ages. ESTEVE is an international pharmaceutical innovator with a rich Spanish heritage and the medications we supply today help millions of patients worldwide. Esteve Química is a European leader in contract development and manufacturing for small molecule intermediates and active ingredients. According to the 2019 Davos World Economic Forum, climate change represents the greatest risk to the global economy, and therefore requires a global response from all sectors of society. ESTEVE is fully committed and working to reduce our carbon footprint, because the health of the environment affects the health of people.

## 1.2 Present and future pharmacy servicesday

### Muy Ilustre Colegio de Farmacéuticos de Valencia

#### Salvador Gutiérrez Igual

*Community Pharmacy Care SPFs (SPF)*

Foro AF-FC defines Community Pharmacy Care SPFs (SPF) as “those healthcare activities provided from the Community Pharmacy by a pharmacist who uses his or her professional skills to prevent disease and improve both the health of the population and that of the recipients of medicines and medical devices, playing an active role in optimizing the process of use and the results of treatments. These activities, aligned with the general objectives of the health system, have their own entity, with definition, aims, procedures and documentation systems, which allow their evaluation and remuneration, guaranteeing their universality, continuity, and sustainability”. In this way, MICOF has developed a catalogue of its own professional services oriented to the needs of pharmacists with the aim of improving the quality of care offered to patients such as: medication review, personalized reconditioning systems, etc.

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#### Cristina Prieto

*Meeting the educational needs of pharmacists*

Continuous training results are of vital importance for healthcare professionals, especially for pharmacists who, due to their direct contact with patients have a duty to practise sanitary education to assure their well-being.

MICOF as a sanitary organization, identifies the training needs that pharmacists have. On the basis of these necessities, MICOF’s training department, designs several and multidisciplinary training courses arranged to the different pharmacist modalities using updated tools to achieve the target.

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#### Ester Piquer

*Xarxa Patients: educating in selfcare and empowerment of patients*

Active patients comprise of patients, caregivers, and family members. These have shown an increased interest in their chronic pathology. Since the appearance of this necessity, MICOF in collaboration with Escuela de Pacientes de la Escuela Andaluza de Salud Pública, has created Xarxa Patients.

Xarxa Patients is a project that constructs an active patients’ network (xarxa in Valencian) which has the aim to put in contact patients who have a chronic pathology in common, educate them in healthy habits and management of their pathology. It will count with sanitary professionals for specific training and solve doubts.

## 1.2 Present and future pharmacy servicesday

### Muy Ilustre Colegio de Farmacéuticos de Castellón

#### **Mar Larrosa Flor** (COLLABORATIVE DISPENSING)

*Outpatient Dispensing: Hospital Pharmacy Services and Community Pharmacies working together for the patient's benefit*

The pandemic has brought Hospital Pharmacy and Community Pharmacies working together to guarantee the dispensation of hospital dispensed medicines for outpatients closer to patient's home, with active participation of Pharmacists Association (Colegios Oficiales de Farmacéuticos - COFs) playing a significant role in the in the coordination and contacts between the parties involved and the distribution channels.

Focusing on maintaining treatment continuity with full guarantees of pharmaceutical care even though not being dispensed in the hospital's outpatient pharmacy but in the community pharmacy, moreover, reducing the patient's sanitary risk of attending to the hospital facilities.

The great reception from patients, community and hospital pharmacists and sanitary administrations has led collaborative dispensing to being established as a new Pharmaceutical service in Comunitat Valenciana.

## 2.1 International Pharmaceutical Cooperation, a Professional Opportunity for Solidarity – International Cooperation in Farmamundi

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### María Blázquez Blázquez

*Farmamundi, Valencia, Spain*

Farmamundi is a non-profit organization with more than thirty years of experience in the health sector that works to ensure the universal right to health to vulnerable populations in impoverished countries through four mission areas: Cooperation for Development, Humanitarian Action and Emergencies, Education for Development and the Humanitarian Procurement Area.

This procuring activity supplying medicines, nutraceuticals and medical supplies within the framework of international cooperation, is accredited by the European Commission since 2013 as a reliable and guarantee center of choice for humanitarian aid supply operations.

The World Health Organization (WHO) recognises the important role of pharmacists in these aid supply operations, the donation process and in the distribution of these medicines.

The WHO guidelines for medicine donations (1) emphasize the role of the pharmacist in ensuring that donated medicines are appropriate for the recipient population, are of good quality and are handled and stored properly.

The figure of the pharmacist is essential in ensuring that medicines are donated and distributed safely, appropriately and effectively.

Given the current complexity that characterizes the international humanitarian supply of medicines, the role of the pharmacist is crucial, as a guarantor of the quality and integrity of medicines throughout the entire distribution chain, especially in the context of humanitarian cooperation where the WHO guidelines of medicine donations must also be observed.

1 OMS. Guidelines for Medicine Donations Revised 2010. Ginebra: OMS. 3rd Edition

## 2.1 Review and implementation of a program to support the prevention and treatment of maternal child malnutrition

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Nutrition is a fundamental part of health and development. Better nutrition is associated with improved child and maternal health, stronger immune systems, safer pregnancies and deliveries, reduced risk of non-communicable diseases and longevity. Nutritional deficiencies are a major health problem in developing countries, with serious health consequences such as physical and mental growth failure.

The overall objective of this project is to reduce the rate of maternal child malnutrition and improve the health status of the most vulnerable population groups in a rural village of Madagascar through the organization of educational events and the promotion of local foods with high nutritional value.

The proposed interventions are integrated into the activities of Change Onlus, a non-profit association that works through social and health interventions in the municipality of Ampefy, a rural village located in the Itasy region of Madagascar. Change Onlus carries out health prevention education campaigns and, in particular, the activities planned in this project are a complement to the malnutrition support programme that has been active in the health center since 2016. The project also aims to evaluate the potential benefits of Moringa, a plant of high nutritional value that is abundant in the intervention area, as a dietary supplement during pregnancy. Moringa leaves, the most widely consumed part of the plant for nutritional purposes, contain several bioactive compounds: they are an excellent source of essential amino acids, vitamins and minerals, including iron, calcium and vitamin C, which are crucial for maternal and foetal health.

## **2.1 Health Promotion and Implementation of a point of care for the beneficiaries of the NGDO BEL AVENIR-AGUA DE COCO in Madagascar**

### **Maria Trelis**

*Faculty of Pharmacy, Valencia*

Thanks to funding from VI Call for Development Cooperation Projects of the Universitat de València, we have launched our project for health promotion and diagnosis and treatment of parasitic diseases and malnutrition in Madagascar. It is an intervention that combats in combination schistosomiasis, geohelminthiasis, malaria and malnutrition among children and women of reproductive age. Next to the NGDO medical centre, a "point of care" has been set up with a laboratory and dispensary where parasitological and nutritional analyses are being carried out and anti-parasite treatments and supplements are being administered. This intervention will be complemented with talks-workshops on health and hygiene for the staff involved, beneficiaries and their families, with the aim of encourage hygiene conditions and daily habits in homes that favour the prevention of diseases and try to make the intervention as sustainable as possible. The activities have been designed in collaboration with Malagasy educators, so that all planned actions and materials have been prepared from the perspective and vision of the Malagasy community ensuring a deep respect for the social characteristics of the beneficiaries, their uniqueness and their own cultural values. UV students (pharmacy, medicine, social work, nursing, psychology), professors (Parasitology and Nutrition) and administrative and service staff of the faculty of pharmacy are involved in this project.

## 2.2 How to educate pharmacy students to work sustainably in the future? Examples from the international educational model “The Pharmacy Game”

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There is a need to embed sustainability in the pharmacy curriculum. The health care system and pharmaceutical industries are a major contributor to climate change. Future pharmacists need to be leaders to ensure sustainable production, supply, prescribing, and disposal of medicines.

The Pharmacy Game educational tool, combining simulation and serious gaming has trained students for skills needed in everyday practice. Various universities from around the world use the Pharmacy Game.

To explore (1) how we can use the Pharmacy Game to teach students how to deliver more sustainable pharmacy services, and (2) what questions should be answered to initiate sustainable educational directions in future.

Three universities, University of Groningen (UG), Vilnius University (VU) and Vrije Universiteit of Brussels (VUB), presented examples from their teaching practice on the following topics: “The Pharmacy Game, transformative tool for innovation in pharmacy education” ; “Sustainability initiatives originated in the time of the COVID-19 pandemic” and “Game activities using contemporary instruments and topics” accordingly.



## **2.2 How to educate pharmacy students to work sustainably in the future? Examples from the international educational model “The Pharmacy Game”**

Afterwards a broader group of professionals divided in two working groups discussed directions and areas where pharmacy curriculum could contribute towards delivering sustainable pharmacy practices.

In the Pharmacy Game, through the years, there have been multiple changes implemented, reflecting the current needs in healthcare. Some examples reflecting sustainability include, hybrid and online teaching, elements of interprofessional education, equality, entrepreneurship, and environmental awareness. The questions that need to be answered to initiate sustainable educational directions in future are: “Which competencies do pharmacists in practice need to work in a sustainable way?” and “How can those competencies be taught in the existing curriculum?”.

The Pharmacy Game can be used to develop skills needed for sustainable pharmacy services. Clear scope of the competences and areas for development need to be established in the pharmacy curriculum to enhance sustainable practices in future.

