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# JUSTICE AND DEMOCRACY

3-4 NOVEMBER 2016
Tîrgu Mureş ROMANIA

## International Conference
ICLPA 5th EDITION

# BOOK OF ABSTRACTS

ORGANIZED BY UNIVERSITY CONSORTIUM TÎRGU MUREŞ

UNIVERSITATEA Petru Maior din TÎRGU MUREŞ

UMF UNIVERSITATEA DE MEDICINĂ ŞI FARMACIE TÎRGU MUREŞ

CENTER OF RESEARCH IN THE FIELD OF URBANISM AND PUBLIC POLICIES

ASOCIAŢIA "PRO IURE"

# PUBLIC HEALTH IMPLICATIONS OF DIETARY FIBER INTAKE TO REDUCE THE COST OF CHRONIC DISEASES

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*Objective*: To assess the epidemiological evidence on dietary fiber intake and chronic diseases and make public health recommendations for the population in Romania based on their consumption.
Populations that consume more dietary fiber from cereals, fruits and vegetables have less chronic disease. Dietary Reference Intakes recommend consumption of 14 g dietary fiber per 1,000 kcal, or 25 g for adult women and 38 g for adult men, based on epidemiologic studies showing protection against cardiovascular disease, stroke, hypertension, diabetes, obesity, metabolic syndrome, gastrointestinal disorders, colorectal -, breast -, gastric -, endometrial -, ovarian - and prostate cancer. Furthermore, increased consumption of dietary fiber improves serum lipid concentrations, lowers blood pressure, blood glucose leads to low glycemic index, aids in weight loss, improve immune function, reduce inflammatory

marker levels, reduce indicators of inflammation. Dietary fibers contain an unique blend of bioactive components including resistant starches, vitamins, minerals, phytochemicals and antioxidants. Dietary fiber components have important physiological effects on glucose, lipid, protein metabolism and mineral bioavailability needed to prevent chronic diseases.
*Materials and methods:* We analysed the questionnaire data with SPSS statistic program. We used mathematical formulas to calculate the mean dietary fiber intake of Romanian adult population and compared the results with international public health recommendations.
*Results*: The study reveals that the mean dietary fiber intake was only 10 g per day across all demographics during that time period. This deficiency predisposes to chronic diseases.
*Conclusions and recommendations:*The poor control of relationship between dietary fiber intake and chronic diseases is a major issue that can result in adverse clinical and economic outcomes. The population in Romania is at risk to develop such diseases due to the deficient fiber consumption. A model of chronic diseases costs is needed to aid attempts to reduce them while permitting optimal management of the chronic diseases. This paper presents a discussion of the burden of chronical disease and its socio-economic implications and proposes a model to predict the costs reduction by adequate intake of dietary fiber.
The opinions expressed herein and the conclusions of this publication are those of the authors and do not necessarily represent the views of Hungarian Chamber of Agriculture.

**Key words:** public health, adequate dietary fiber intake, chronic diseases

SUMMARY ID: 853