

HIGH PREVALENCE AND IMPACT OF NUTRITIONAL CHALLENGES AND WEIGHT LOSS DURING ANTI-CANCER TREATMENT: PERSPECTIVE FROM PATIENTS WITH CANCER ACROSS EUROPE

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ABSTRACT

Introduction: Cancer and its treatments place individuals at risk of weight and muscle loss, which are associated with poor clinical outcomes including decreased treatment tolerance. Patient experience and patient-reported outcomes are becoming increasingly relevant in oncology care in predicting quality of life and clinical outcomes. This survey aimed to increase understanding of patient experience with nutrition and nutrition-related issues and how these issues may affect therapeutic outcomes.

Methods: The survey conducted in 7 European countries (France, Spain, Germany, Italy, Poland, United Kingdom, and the Netherlands) included individuals with active cancer and cancer survivors. Participants were asked to fill out an online questionnaire with single- or multiple-choice questions.

Results: 700 individuals with various cancer types completed the questionnaire (51% male, mean 54.5 years, 61% were diagnosed with cancer in the past 5 years). 3 out of 5 (61%) reported unintentional weight loss during their cancer journey, observed across all BMI categories including those overweight or obese. For the vast majority (82%), weight loss was clinically significant (>5% of initial weight). Weight loss was a source of concern for 61% of patients and 70% of caregivers. On average participants reported to have experienced 2.8 nutrition-related problems “very often/often”, with the most common problem being appetite loss (34%), xerostomia (34%), taste alteration (31%), and early satiation (29%). One third (32%) reported that their weight loss negatively impacted cancer treatment, including delays (15%), modifications (11%), and interruptions (6%). 83% of participants considered the role of nutrition to be important during treatment and recovery.

Conclusions: Patient-reported outcomes in this large-scale survey provide an overview of nutrition-related problems during cancer, highlight the high prevalence, and impact of malnutrition, and reiterates the importance of providing adequate nutritional education, screening and nutritional intervention including medical nutrition, as a key component of holistic care, across the cancer journey outcomes and quality of life.

INTRODUCTION

Cancer remains the leading cause of death among individuals aged 40–79 years, significantly impacting mortality rates globally^{1,2}. Both cancer and its treatments place individuals at **risk of weight and muscle loss** (cachexia)^{1,2} and up to 80% of patients experience malnutrition^{3,4}. This condition not only involves muscle and weight loss but also systemic inflammation and metabolic disturbances that reduce patients' performance status and treatment tolerability².

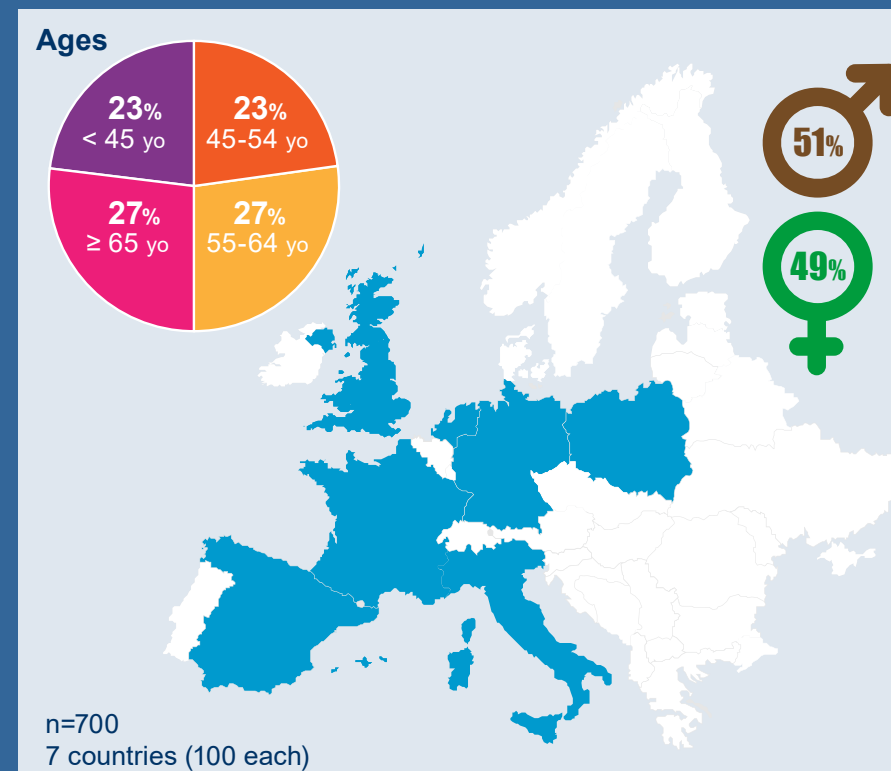
The importance of **patient-reported outcomes measures (PROM)** in oncology care is growing. These metrics are crucial as they predict quality of life and overall clinical outcomes. Research has shown that implementing feedback systems regarding PROM to patients and doctors enhances symptom management, improves health-related quality of life, and fosters better communication between patients and doctors⁵.

This survey aims to enhance our understanding of patients' **experiences with nutrition and nutrition-related challenges** and how these issues may impact therapeutic outcomes. Effective nutritional interventions are essential not only for maintaining weight but also for improving overall quality of life and treatment outcomes.

METHODS AND MATERIALS

- **Online questionnaire** with single- or multiple-choice, with implemented quality control measures, including monitoring for overly rapid or careless answer patterns.
- The participants were **patients with cancer**, either currently undergoing treatment or having completed their last treatment within the past 5 years.
- Data was collected from **July 21 to August 28, 2023**, and processed using an unweighted sample method, with a **90% confidence interval**.

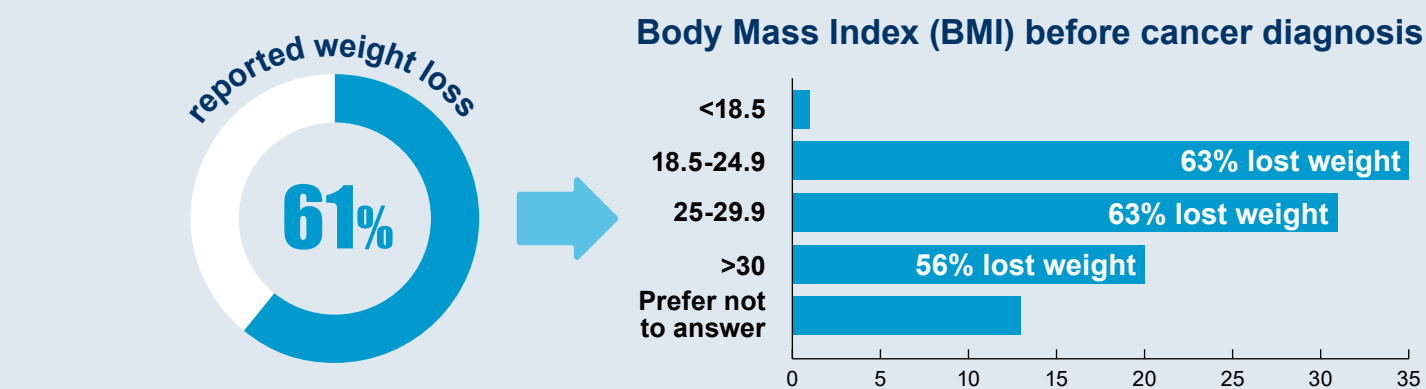
SURVEY POPULATION



- **700 individuals** with up to **24 different cancer types** were observed, with breast (19%), skin (12%), prostate (12%) and colon-rectum (8%) being the most common.
- 61% diagnosed with cancer in the past 5 years.
- 49% women / 51% men.
- Mean age: 54.5 years old.

RESULTS

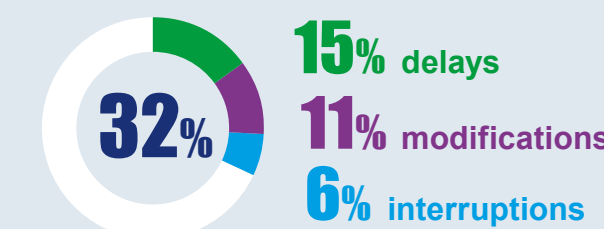
Unintentional weight loss was reported by 61% of patients, across all BMI.



Among patient who reported weight loss (WL), **82%** claimed it was higher than 5%.

< 5%	5-10%	> 10% WL
7%	25%	57%

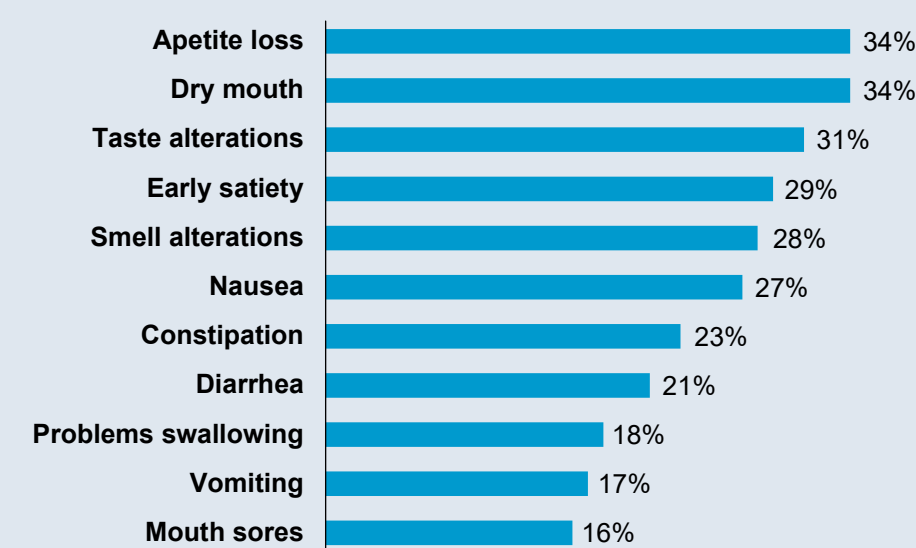
Participants reported that weight loss negatively affected cancer treatment.



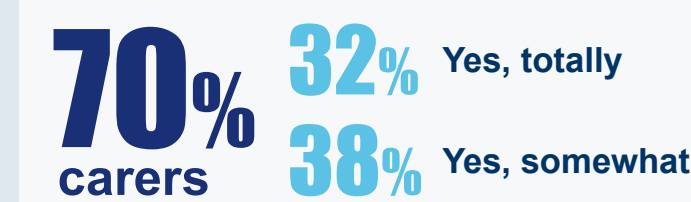
64% of patients experienced eating and nutrition-related issues.

Cancer type (n)	At least 1 issue
Upper GI (33)	97%
Gynecological (57)	81%
Hematologic (57)	77%
Colon-rectum (57)	75%
Breast (132)	67%
Prostate (86)	50%
Melanoma of the skin (88)	35%

Each patient reported suffering from an average of 2.8 nutrition-related issue “often/very often”.



Weight loss was a major concern for patients and their caregivers.



83% participants considered that the role of nutrition is important during treatment and recovery.

Patients reported that nutritional topics should be addressed earlier: **28%** At cancer diagnosis, **31%** Before treatment.

DISCUSSION

Malnutrition is linked with poorer prognosis in patients with cancer, adversely affecting survival rates⁶⁻⁸ and quality of life (QoL)^{9,10}. It results from cancer cachexia, metabolic changes, and treatment side effects^{1,2}. Among these, **nutrition-related challenges** such as appetite loss, xerostomia, taste alteration, and early satiation were reported by most of survey respondents. These contributed to reduced oral intake and weight loss, experienced by 61% of patients in this survey, which is consistent with high prevalence of up to 80% reported in literature^{3,4}.

32% patients report an impact of weight loss on their treatment plan, consistent with literature showing that **weight loss is associated to poor treatment tolerance**¹¹. The impact on treatment plan as well as the burden on patients and carers support the need to consider PROMS while managing malnutrition in practice.

Nutritional support in cancer is associated with better outcomes, including improved treatment tolerance and QoL^{9,12,13}. The survey showed awareness amongst patients, with 83% considering nutrition as important during the cancer journey, advocating for it to be addressed early after diagnosis.

CONCLUSIONS

- The survey complements the existing literature reporting the **negative impact of malnutrition and the role of clinical nutrition in cancer care**. It highlights the prevalence and burden of nutrition-related challenges from the perspective of patients.
- **Early and individualized nutritional interventions**, guided by comprehensive nutritional assessments and PROM, **are essential for improving clinical outcomes and QoL in patients with cancer**.
- **Future research should continue to refine these strategies** and explore innovative approaches to integrate nutrition into standard oncology care.

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