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in association with ICE Cancer Survivorship Award Investigators and SUN Study Investigators

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Introduction

Head and neck cancer (HNC) and its treatments can have ongoing implications for individuals in terms of speech, eating and appearance. Although all of these can effect performance in the workplace there have been few studies of the return to work patterns and productivity losses associated with HNC.

The aims of this research were to a) examine the patterns of return to work following a diagnosis of HNC, and b) estimate the productivity losses (defined as temporary time off work, permanent time off work, reduced hours at work and premature mortality) of individuals working at the time of HNC diagnosis.

Methods

The SUN-study was a survey of HNC patients in Ireland including questions about type and quantity of work pre- and post-diagnosis. Average wage rates and weekly hours worked in Ireland (by gender and occupation) were obtained from the Central Statistics Office. Premature mortality rates were estimated using National Cancer Registry data.

Descriptive analyses of the variables relating to patterns of return to work and demographics were undertaken in the sub-sample of individuals who were employed at the time of HNC diagnosis.

Productivity losses were calculated for those of working age (<65 years) using the Human Capital Approach, which assumes that when an individual leaves the workforce the value of their workforce participation (estimated as their income) is lost to society. For this analysis, productivity losses were accrued until assumed retirement at 65 years of age. Wage growth was forecasted at 1.7% per year and the discount rate was assumed to be 4% per year.

Results

Survey respondents

583 survey responses were received (59% response rate), with 285 respondents in paid work at the time of diagnosis (analysis group). Table 1 shows the demographics of the analysis group. Figures 1 & 2 present patterns of return to work following HNC diagnosis.

Productivity losses

Using the Human Capital Approach, average total productivity losses for HNC were estimated to be €165,000 per HNC survivor of working age and working at the time of diagnosis. The productivity loss associated with each component of productivity are shown in Figure 3.

Table 1: Demographics of analysis group

Gender		Location	
Male	70%	City or town	60%
Female	30%	Rural	40%
Marital status		Employment	
Married	68%	Employed	66%
Not married	32%	Self-employed	34%
Age		Time since diagnosis	
Median age	53	Median years	5

Conclusions

The majority of individuals take time off work following a diagnosis of HNC, and the average time taken is 9 months. Total productivity loss is estimated at €165,000 per HNC survivor working at the time of diagnosis.

Productivity loss is one element of burden of illness. These findings demonstrate the significant impact HNC can have on workforce participation, and the need for return to work to be considered within patient care.

Figure 1. Proportion of HNC survivors who took time off work following diagnosis

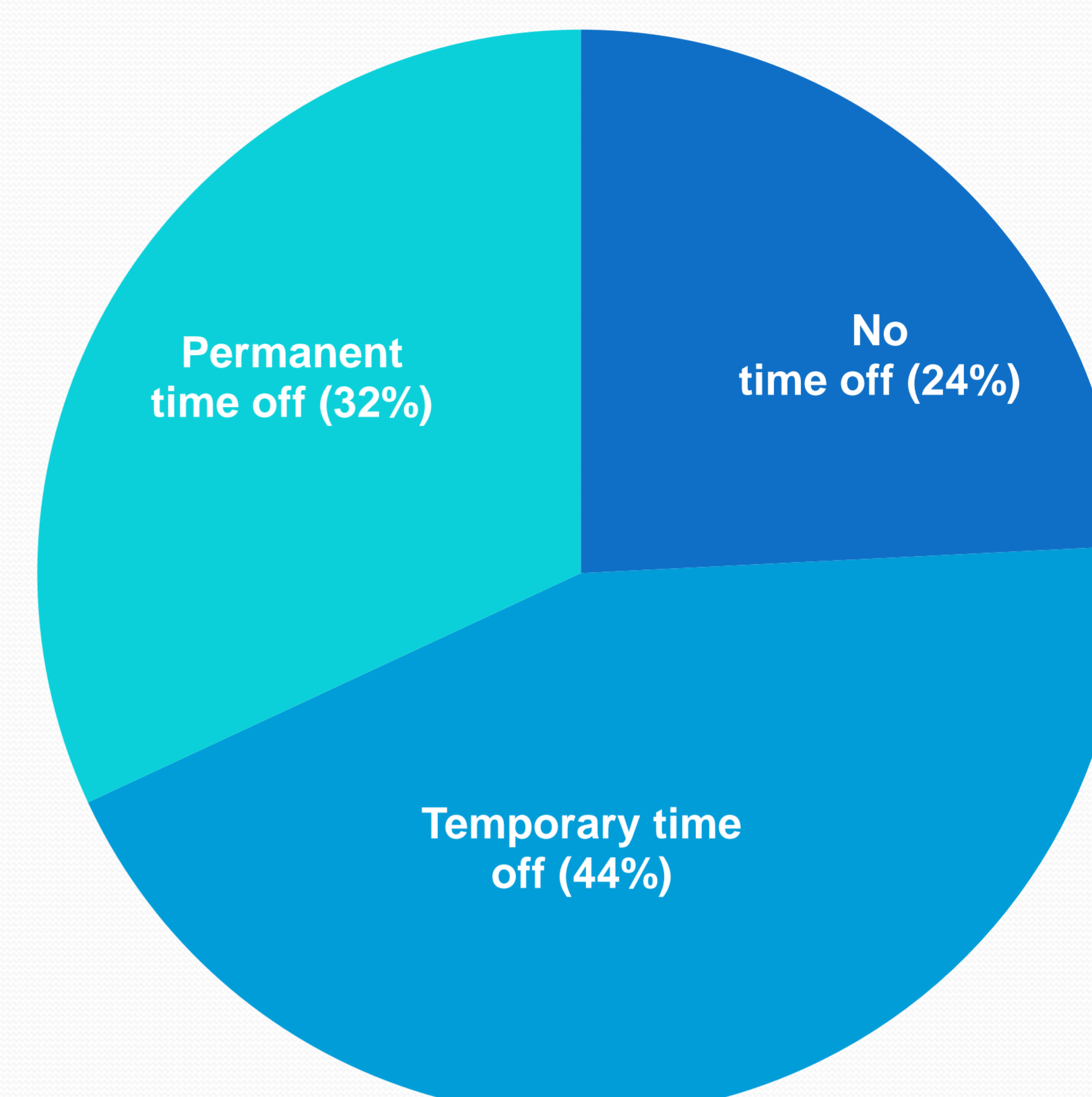


Figure 2. Return to work patterns of HNC survivors who were employed at the time of diagnosis (censored at 3 years)

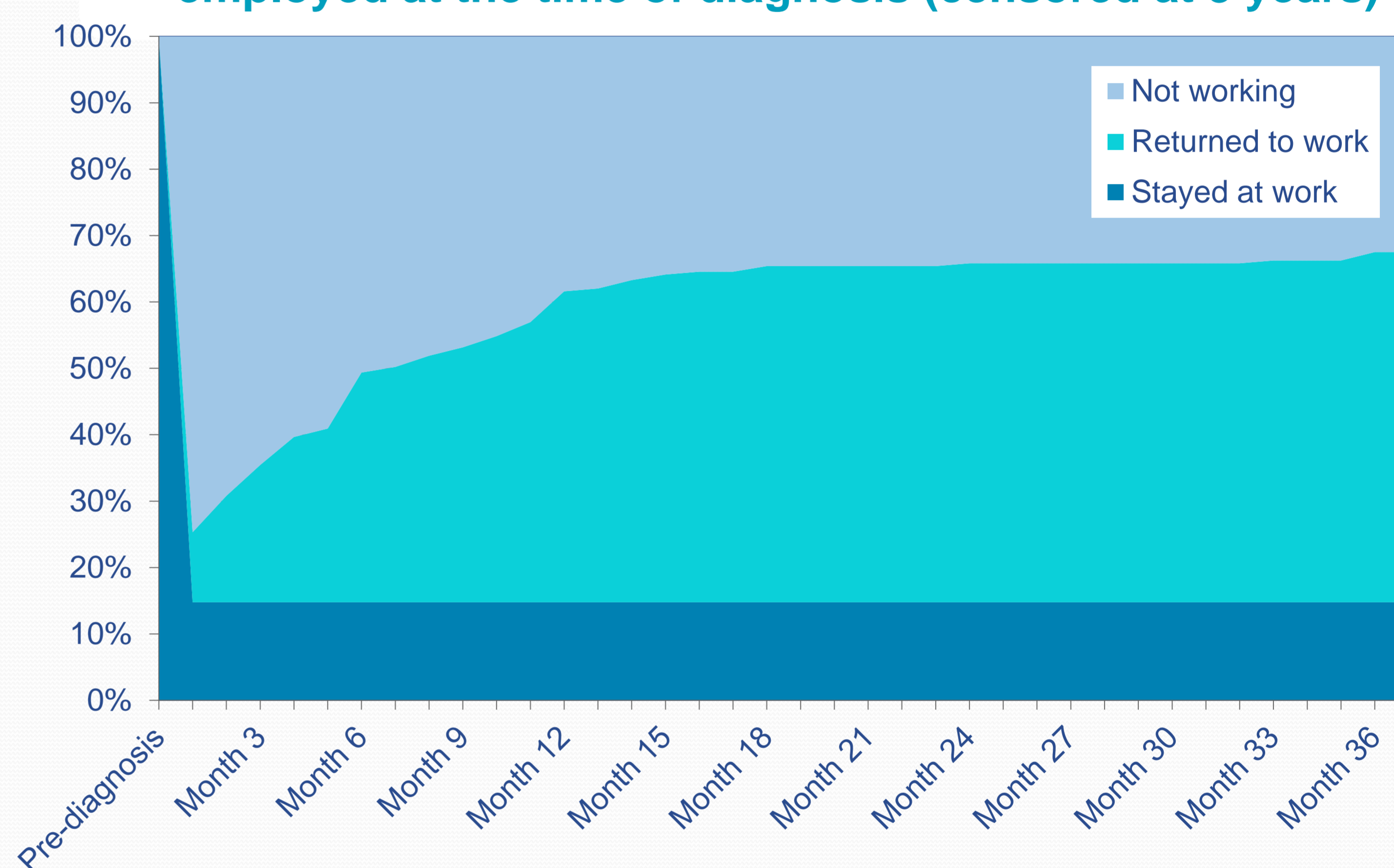
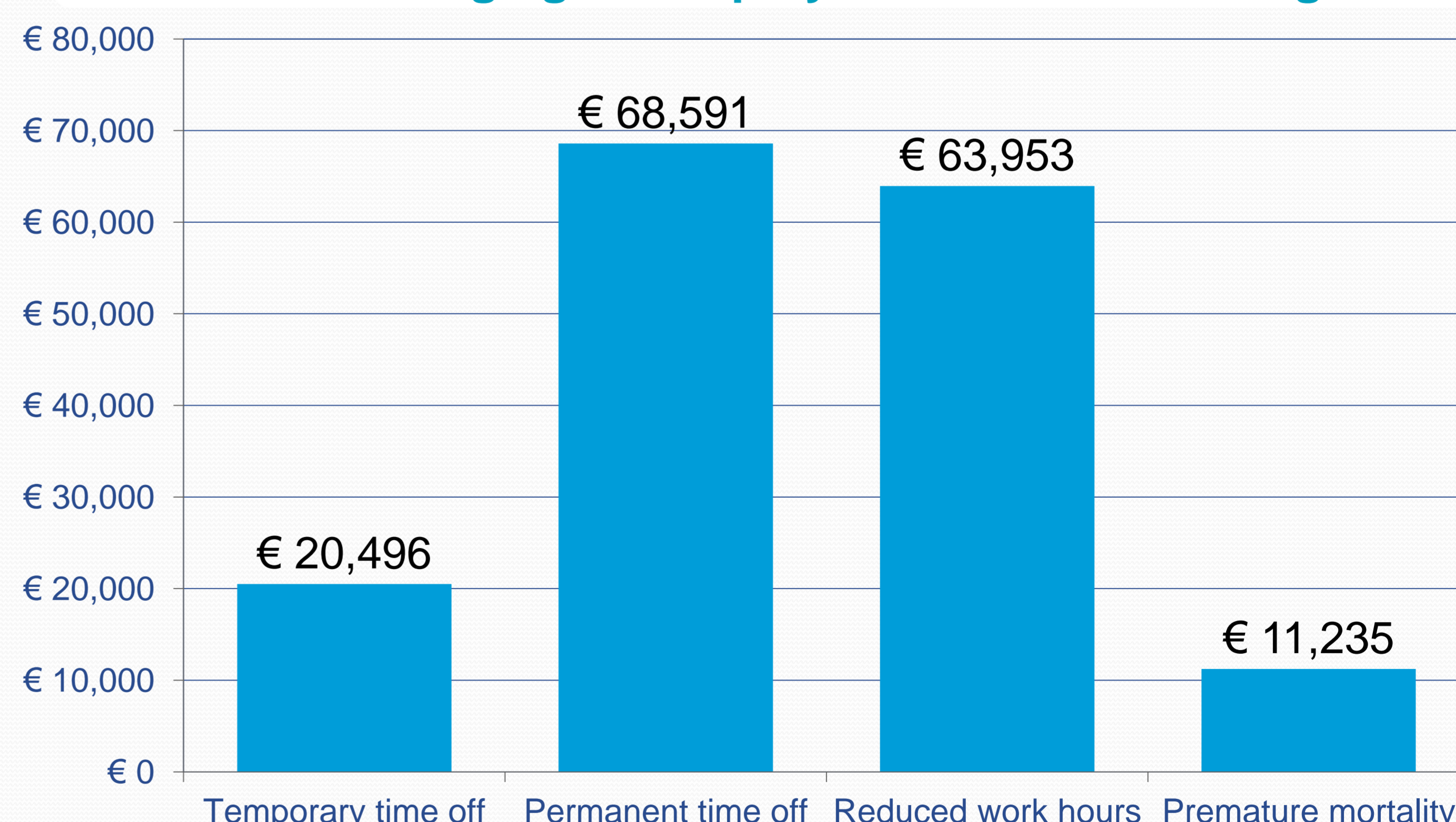


Figure 3. Average productivity losses per survivor of HNC who was of working age & employed at the time of diagnosis



Contacts

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