The Impact of Early- or Late-Stage Cancer Diagnosis on Patient Employment, Productivity, and Associated Indirect Costs

Summary of "Productivity Loss and Indirect Costs for Patients Newly Diagnosed with Early- versus Late-Stage Cancer in the US: A Large-Scale Observational Research Study"

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Cancer Can Affect Patients' Employment and Work Productivity

Many cancers are detected too late, when treatment may not be very effective.[1-3] Treating late-stage cancer, when it has spread throughout the body, can cost twice as much as treating early-stage cancer.[4-5] In addition to the high cost of treatment, cancer also has negative effects on patients' employment and productivity at work.[6] This leads to indirect costs to employers and society.[7]

A Study Determined if Cancer Diagnosed at Later Stages Affects Patients' Employment, Productivity at Work, and Indirect Costs to Employers

There is little information on how a cancer diagnosis at an early or a late stage can affect patients' work or how it then affects employers. Therefore, a large study was done in thousands of patients to evaluate this.[8] Medical insurance databases were used to identify patients aged 18-64 who were recently diagnosed with cancer. They were separated into two different groups. The first group of patients was diagnosed at early stages *before* the cancer had spread. The second group of patients was diagnosed at a late stage *afte*r the cancer had spread. These patients were followed for at least a month after their diagnosis to determine if they experienced a change in employment (quit their job or went from full- to part-time) and how many days of work they missed. The study also calculated the number of days patients missed from work as a work absence (e.g., paid time off, sick day), short-term disability, or long-term disability. Indirect costs to employers were also determined. Each of these metrics were evaluated for the first year after cancer diagnosis. The study was conducted using data from June 2008 to June 2020.

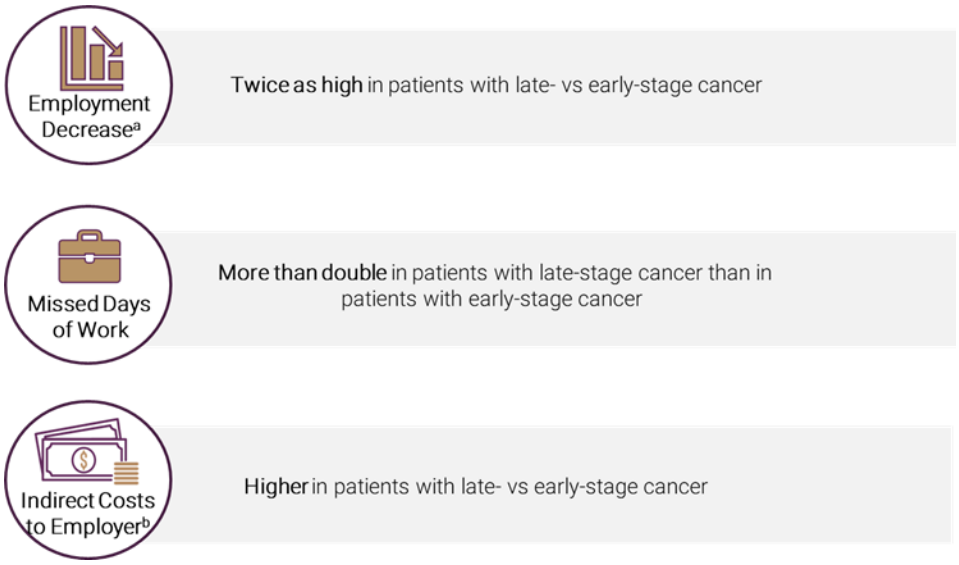
Patients Diagnosed with Cancer at Later Stages Had a Greater Negative Impact on Employment, Productivity, and Indirect Costs Than Those Diagnosed at Early Stages

During the first year after receiving a cancer diagnosis, the rate of employment decrease was twice as high in patients with late-stage cancer than in patients with early-stage cancer. (**Figure 1**). In both groups, more than half of patients had claims for a work absence in the first year after diagnosis. A higher percentage of patients with late-stage cancer had claims for short- or long-term disability than patients with early-stage cancer. In addition, patients diagnosed with late-stage cancer on average missed more than double the number of days of work than patients with early-stage cancer (106 days vs 46 days). Average indirect costs to employers were higher for patients with late- versus early-stage cancer during the first year after diagnosis ($10,746 difference based on national average wages).

The study had a few limitations. Patients with late-stage cancer were followed for shorter times than patients with early-stage cancer. This may be because patients with late-stage cancer generally do not survive as long as patients with early-stage cancer. This research also studied patients living in the US who have commercial insurance. Therefore, the results may not apply to patients who live outside the US or to patients with no insurance.

Overall, these results show that employment decrease, work loss, and indirect costs were higher for patients with late-stage versus early-stage cancer.

Figure 1. Late-Stage Cancer Diagnosis Resulted in Higher Rates of Employment Decrease, More Missed Days of Work, and Higher Indirect Costs Than Early-Stage Cancer Diagnosis During the First Year After Diagnosis



[a]Employment decrease was defined as changing from full time to either part time or quit job, or from part time to quit job; [b]Costs were calculated based on the national average wage calculation.

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