When, how and why should we assess productivity loss using patient-reported data?

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CONTEXT

HEOR often focuses on productivity loss through **sick leave and disability data.**

A less visible, but critical, gap is **understanding reduced productivity among patients who continue working**, and the resulting economic burden.

Administrative Data	Patient Reported Data
What we meassure • Sick leave • Disability	**What we meassure (more granular)** • Absenteeism (self-reported) • Presenteeism (reduced productivity) • Overall work impairment • Functional limitations (cognitive, physical, time) • Changes in work status (part-time, role adaptation) • Impact on life trajectory (education, career, family)
What it captures ✓ Absenteeism	
✗ **Limitation** Does not capture productivity while working	**What it captures** • Real-life productivity • Variability over time • Hidden burden • Long-term impact ✓

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WHEN IS PATIENT-REPORTED DATA CRITICAL FOR COST MODELLING?

When productivity is affected without leading to absence

- Chronic diseases where patients remain employed despite symptoms
- Conditions with fluctuations (fatigue, pain, flares)

Patients are at work but not at full capacity or productivity varies over time.

Absenteeism alone will systematically underestimate the burden.

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WHEN IS PATIENT-REPORTED DATA CRITICAL FOR COST MODELLING?

When “usual methods” from medico-administrative databases are not well adapted

Traditionnal approaches become less informative for:

Rare diseases or targeted populations	Early-onset diseases	Indirect or cumulative effects
Limited or fragmented data	Impact occurs before workforce entry	Career interruptions
Small samples	Not captured by sick leave	Delayed education
Heterogeneous pathways		Reduced working hours

Focusing only on absenteeism misses a significant part of the economic impact.

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HOW TO MEASURE (INSTRUMENTS)

WPAI

Work Productivity and Activity Impairment questionnaire

- Absenteeism
- Presenteeism
- Overall work impairment (7-day recall)

Main Tool

Key Output: Allows productivity loss to be quantified even when patients are still working.

Complementary Tools

WLQ
Work Limitations Questionnaire

Measures functional limitations at work (cognitive, physical, time management)

HPQ
Health and Work Performance Questionnaire

Assesses self-rated job performance compared to peers

iPCQ
iMTA Productivity Cost Questionnaire

Captures absenteeism, presenteeism and unpaid work

MLCDP
Major Life Changing Decisions Profile

Captures impact on major life decisions (education, career, family)

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HOW TO TRANSLATE INTO COSTS

Human Capital Approach (HCA)

Cost = wage x productivity loss

✓ Includes absenteeism + presenteeism

✓ Most commonly used

Friction Cost Method (FCM)

Cost = wage x friction period

✓ Conservative

✓ Reflects labor market adjustment

⚠ Mostly applied to absenteeism

Limitations of Patient-Reported Data

- Short recall periods → extrapolation needed
- Variability over time → may not reflect annual averages
- Self-report bias (perception vs actual productivity)
- Focus on employed population
- Cross-country comparability challenges

→ **These limitations impact cost estimates and uncertainty**

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WHY IT MATTERS FOR HEOR MODELS

Productivity loss is not a single concept.

Your results depend on:

- What you measure
- How you value it
- What data you use

In practice:

Cost of illness studies

Presenteeism often represents a major driver of indirect costs

Societal perspective

More likely to include presenteeism and broader productivity dimensions

HTA models

Less frequently included in base-case analyses, sometimes explored in scenario analyses

Two models can both include “productivity loss” and estimate very different economic burdens

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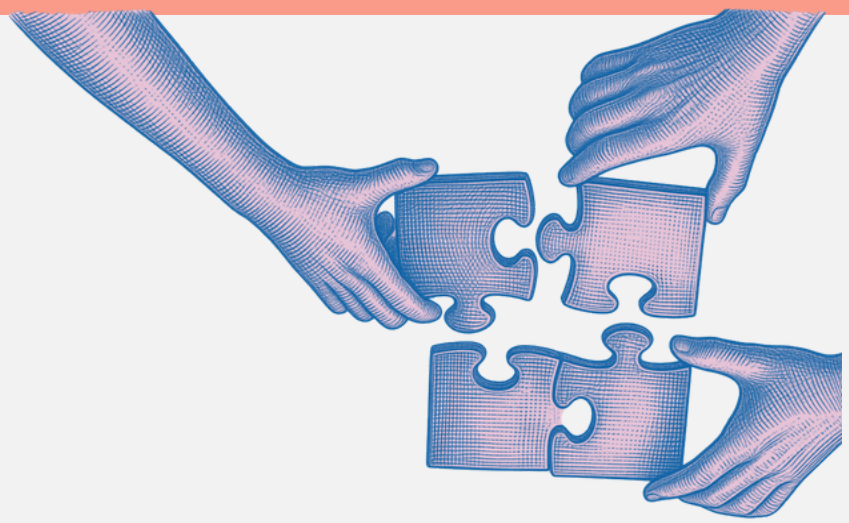
KEY TAKEAWAYS

Administrative Data = What is visible

Patient-Reported Data = What is experienced

Combining both = A 360° view of productivity loss



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At Carenity, we are convinced of the power of Patient-reported data to enhance HEOR.

We are a digital CRO specialized in Patient-Centered Outcome Research.

Find out more at

ProCarenity.com

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