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Update of the iMTA Productivity Cost Questionnaire (iPCQ)

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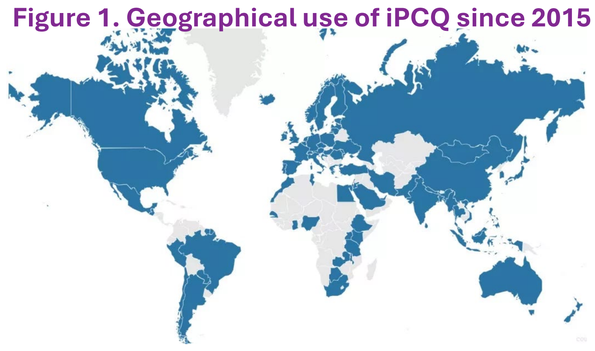
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Objectives

Productivity losses often comprise a large component of costs in economic evaluations adopting a societal perspective. The iMTA Productivity Cost Questionnaire (iPCQ) was developed in 2015 to validly measure and subsequently value these losses.[1] The instrument is available in a wide range of translations and globally used in economic evaluations and societal burden of illness studies. Since 2015, the iPCQ has been used in over 1,500 studies.

Figure 1. Geographical use of iPCQ since 2015

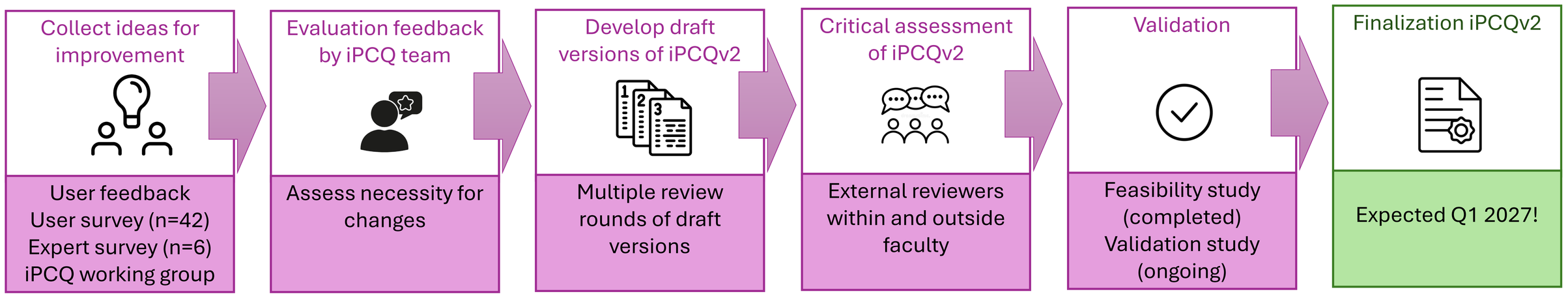


Based on user feedback and to accommodate changing (post-COVID) working conditions[2], an updated version of the questionnaire was deemed necessary. Here, we describe the update and improvement of the instrument (henceforth: iPCQv2).

Methods

A working group was established consisting of researchers experienced with measuring and valuing productivity losses. To complement the group's own views for improvements of the questionnaire, a survey was distributed among users of the original iPCQ. Users were identified through study registrations and publications in the literature. In addition, a survey was distributed among researchers with expertise in measuring and valuing productivity losses.

Their feedback was evaluated by the working group. Draft versions of the iPCQv2 were developed in multiple revision rounds and critically assessed within the group and subsequently reviewed by external reviewers. Finally, a representative sample of the Dutch population completed an online version of the iPCQv2 to study the feasibility of the instrument. Data collection for the feasibility study was organized by the Dutch LISS panel.



Changes in iPCQv2

- Rephrasing and clarifying existing questions
- Working from home (e.g., rephrasing 'absent from work')
- More inclusive language (e.g., gender neutral answer categories)
- Added module: Multiplier effects
- Added module: Compensation mechanisms
- Manual: Extra information on valuation
- Manual: Handling implausible and missing values

Findings feasibility study

A feasibility study was performed among a representative sample of the Dutch population (n=1545). Of this population, 990 people (64.1%) had paid work. In general, feasibility of the iPCQv2 was considered good. Overall, responses were plausible, although some respondents indicated to work more than 12 hours per day (2% of responses) or had more than 8 hours of unpaid work lost per day (6% of responses). The number of people reporting multiplier effects was limited (4%), but among those people, the number of colleagues affected was rather large (i.e., 13% had 10 or more colleagues impacted). Furthermore, the data showed little inconsistencies, although some were observed regarding presenteeism (11% of respondents) and unpaid workdays (5%). In the validation study, specific attention will be reserved for possibly implausible values and inconsistent responses.

Table 1 shows the cost estimates from the feasibility study. All cost categories proved to be important contributors of total productivity costs.

Table 1. Estimates from feasibility study (28-day recall period, Dutch unit costs, friction cost method)

	Avg (range)	Remark
Costs short-term	€57 (0-6,736)	€1,127 for people w/ short-term work loss
Costs long-term	€42 (0-7,485)	€2,304 for people w/ long-term work loss
Costs presenteeism	€56 (0-5,614)	€607 for people w/ presenteeism
Multiplier	1.004	1.099 for people w/ multiplier effects
Costs unpaid work	€91 (0-13,177)	€867 for people w/ unpaid work loss

Conclusions & Next steps

The iPCQv2 incorporates changes in working conditions and addresses limitations identified in the original questionnaire. Initial feasibility findings support its further development, while the ongoing validation study will assess its measurement properties.

The finalized iPCQv2 will be translated into multiple languages to enable use in international studies. Online versions for major data collection platforms will also be developed.

Contact us!

References:
1. Bouwmans C, Krol M, Severens H, et al. The iMTA Productivity Cost Questionnaire: A standardized instrument for measuring and valuing health-related productivity losses. Value Health (2015) 18(6): 753-758.
2. Brouwer W, Huls S, Sajjad A, et al. In absence of absenteeism: Some thoughts on productivity costs in economic evaluations in a post-corona era. Pharmacoeconomics (2022) 40: 7-11.

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