

Health Technology Assessment

«New Health Economic Perspectives»

(or today: Shouldn't We Consider the Socioeconomic Impact of Disease and Medical Care on Patients and their Relatives?)

Professor **Michael Schlander** M.D., Ph.D., M.B.A.

University of Heidelberg and German Cancer Research Center (DKFZ);

Institute for Innovation & Valuation in Health Care (Wiesbaden / Germany)

Health Technology Assessment

Economic Evaluation Perspectives

The Societal Perspective

- ▮ Cost Benefit Analysis (CBA)
- ▮ (Maximum) Willingness-to-Pay (WTP) / Welfare Economics

The Perspective of Payers (NHS & PSS)

- ▮ Cost Effectiveness Analysis (CEA)
- ▮ (Incremental) Cost per QALY Gained (ICER) / Extrawelfarism

The Perspective of Patients

- ▮ ...

Health Technology Assessment

Economic Evaluation Perspectives

The Societal Perspective

- ▮ Cost Benefit Analysis (CBA)
- ▮ (Maximum) Willingness-to-Pay (WTP) / Welfare Economics

The Perspective of Payers (NHS & PSS)

- ▮ Cost Effectiveness Analysis (CEA)
- ▮ (Incremental) Cost per QALY Gained (ICER) / Extrawelfarism

The Perspective of Patients

- ▮ Socioeconomic Impact Analysis (SEIA)
- ▮ Patient Reported Outcomes (PROs)

Health Technology Assessment

Economic Evaluation Perspectives

The Societal Perspective

- ▮ Cost Benefit Analysis (CBA)
- ▮ (Maximum) Willingness-to-Pay (WTP) / Welfare Economics

The Perspective of Payers (NHS & PSS)

- ▮ Cost Effectiveness Analysis (CEA)
- ▮ (Incremental) Cost per QALY Gained (ICER) / Extrawelfarism

The Perspective of Patients

- ▮ Socioeconomic Impact Analysis (SEIA)
- ▮ Patient Reported Outcomes (PROs)

The Perspective of Citizens

- ▮ Social Cost Value Analysis (SCVA)
- ▮ (Relative) Social Willingness-to-Pay (RS-WTP)

Health Technology Assessment

Patient-Reported Outcomes (PROs)

— A PRO is ...

- ... «any report of the status of a patient's health condition that comes directly from the patient without interpretation of the patient's response by a clinician or anyone else» (FDA definition, Patrick et al. 2007).
- «A PRO pertains to the patient's health, quality of life, or functional status associated with health care or treatment» (Weldring & Smith 2013).
- «PROs are one of several clinical outcome assessment methods that complement biomarkers, measures of morbidity (e.g. stroke, myocardial infarction), burden (e.g. hospitalization), and survival used and reported in clinical trials and non-randomized studies.» (Johnston et al. 2019).

OECD Task Force: Objectives

Rationale, Objectives, and Anticipated Outcomes

— Objectives:

- To fill the gap in standards and guidance for studies exploring the **socioeconomic impact** of cancer and cancer care on patients and their relatives;
- To reduce or eliminate the risk of wasted research efforts due to redundant, overlapping, and incomparable work owing to unnecessarily heterogeneous use of terms and definitions, and
- To support and facilitate further research in the field, including a potential platform for future collaborative projects by members of the Task Force.

OECD Task Force on «Socioeconomic Impact Research»

Membership

Netherlands Cancer Institute
(NKI-AVL), *The Netherlands*

Wim van Harten (*TF Co-Chair*), Valesca
Retèl, Nora Franzen, Julie Vancoppenolle

Centre Henri Becquerel, *France*

Artus Paty, Thomas Vermeulin

Institut Curie Paris, *France*

Philip Thierry

Humanitas Research Hospital
(IRCCS), *Italy*

Elena Vanni

Instituto Catalán de Oncología, *Spain*

Olaya Seoane, Agustín Escobedo, Sandra
Foix

Hospital de Braga, *Portugal*

João Porfírio Oliveira

Klinika za tumore Klinicki bolnicki
centar Sestre milosrdnice, *Croatia*

Iva Kirac

Former Minister of Health, *Croatia*

Sinisa Varga

University of Oslo, Institute of Health
and Society, *Norway*

Eline Aas

Oslo University Hospital, *Norway*

Sigbjørn Smeland

King's College London, *England*

Richard Sullivan

Arturo López Pérez Foundation, *Chile*

Camila Quirland Lazo, Felipe Maza,
Jeanette Alejandra Fuentes

Haus der Krebshilfe, *Germany*

Bernd Crusius

German Cancer Research Center
(DKFZ) / Health Economics, *Germany*

Michael Schlander (*TF Chair*), Karla Hernan-
dez-Villafuerte, Diego Hernandez, Rachel
Eckford, Phu Duy Pham, Jasper Ubels

«Financial Toxicity»: A Definition¹

National Cancer Institute (NCI):

Problems a **patient** has related to the **cost of medical care** such as not having health insurance or having a lot of costs for medical care not covered by health insurance can cause financial problems and may lead to debt and bankruptcy.

Financial toxicity can also affect a patient's **quality of life** and access to medical care. For example, a patient may not take a prescription medicine or may avoid going to the doctor to save money.

«Financial Toxicity»: A Definition¹

1. adopting the perspective of patients
2. what about impact of/on relatives (caregivers, dependents, etc.)

National Cancer Institute (NCI):

Problems a **patient** has related to the **cost of medical care** such as not having health insurance or having a lot of costs for medical care not covered by health insurance can cause financial problems and may lead to debt and bankruptcy.

Financial toxicity can also affect a patient's **quality of life** and access to medical care. For example, a patient may not take a prescription medicine or may avoid going to the doctor to save money.

1. reflecting the traditional focus on (presumably “health-related”) quality of life
2. what about other constructs (and their valuation), capturing the full range of “intangible costs” incurred by patients (such as capabilities / functional status, health perceptions, psychological well-being / distress, social networks, life satisfaction, etc.)

1. focus on “out-of-pocket” (oop) costs, i.e., direct medical & non-medical costs from the perspective of patients
2. what about income loss, i.e., indirect costs from the perspective of patients

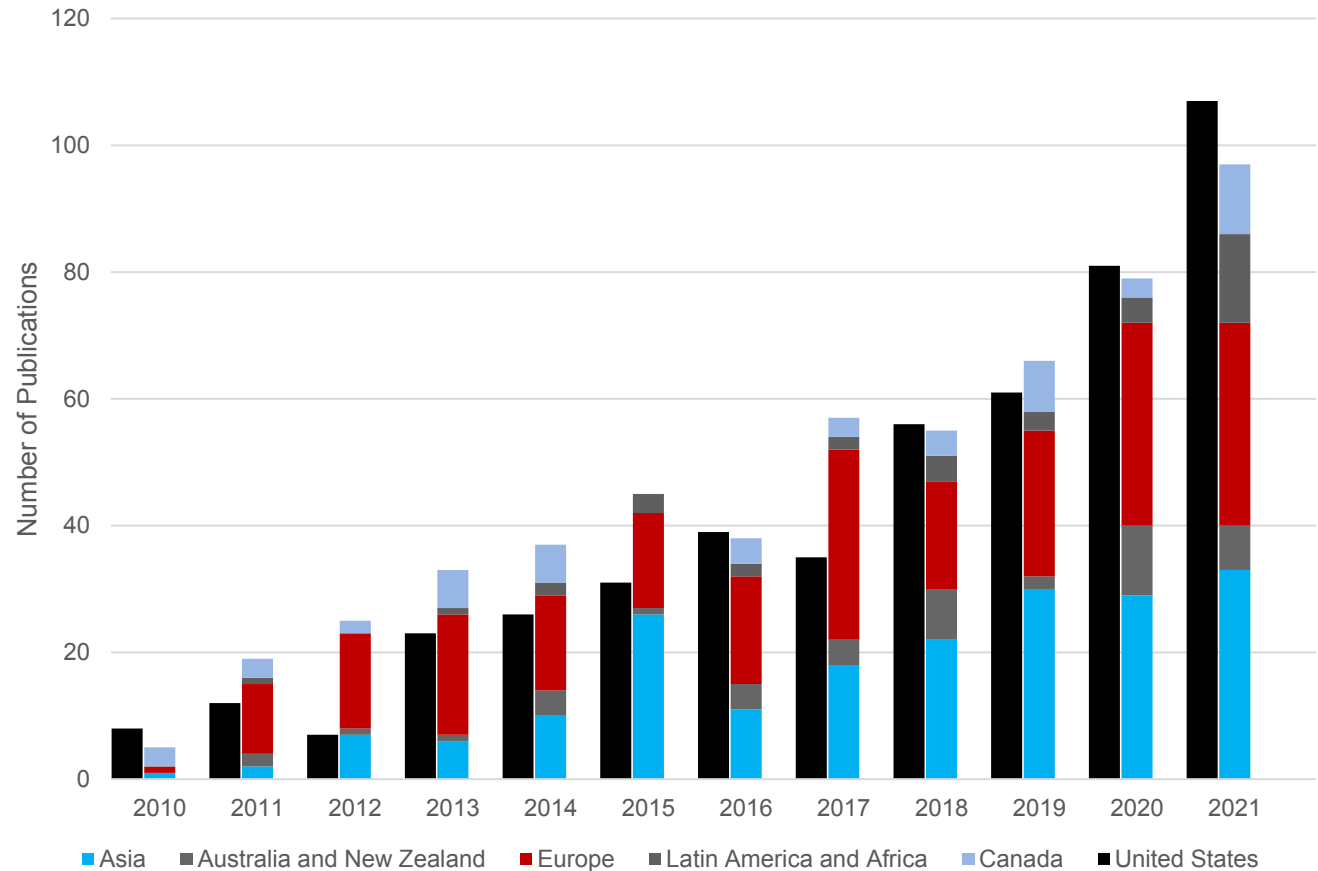
«Financial Toxicity»

Literature Analysis: Terminology

- **Cancer patients from European countries report different levels of the financial burden**
 - Co-payments, sickness benefits, work flexibility, public provision of caregiving
 - There is a need for a better understanding of coping behaviors
- **No consensus on a «financial burden threshold»**
 - A consensus on when a family should be considered to be suffering from a worrying level of financial burden is required to establish effective policies
- **Methodology, terminology, and definitions vary considerably**
 - Variations hinder policy-makers and stakeholders from using the vast amount of information available to inform policies and actions
 - There is a need for a tool that allows classification of the current and future literature and that brings order to the topic
 - Such a tool should be based on a conceptual framework that reflects present knowledge and can be adapted to the needs of the health systems

«Financial Burden»

Bibliometric Analysis



Increase in publications by region¹

Canada and U.S. are differentiated to illustrate U.S dominance. Inclusion of original, peer-reviewed publications, published conference abstracts, and systematic and non-systematic reviews.

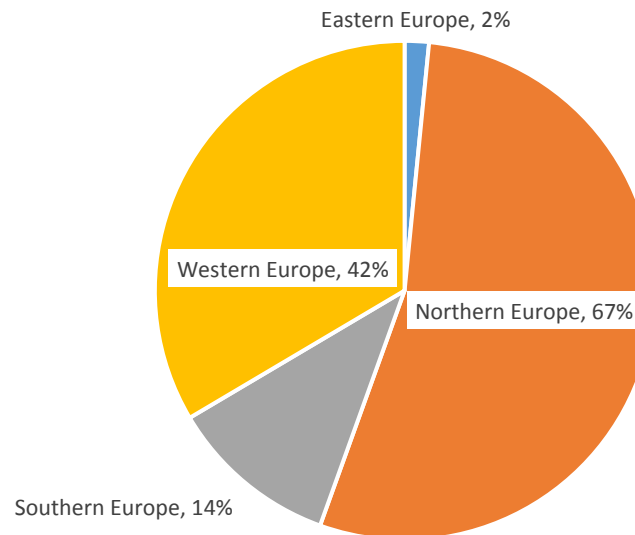
¹from Schlander et al.,
The Lancet Oncology
25 (2024): e152-e163

«Financial Burden»

Bibliometric Analysis

Frequency of Study Output by Region n=153

■ Eastern Europe ■ Northern Europe ■ Southern Europe ■ Western Europe



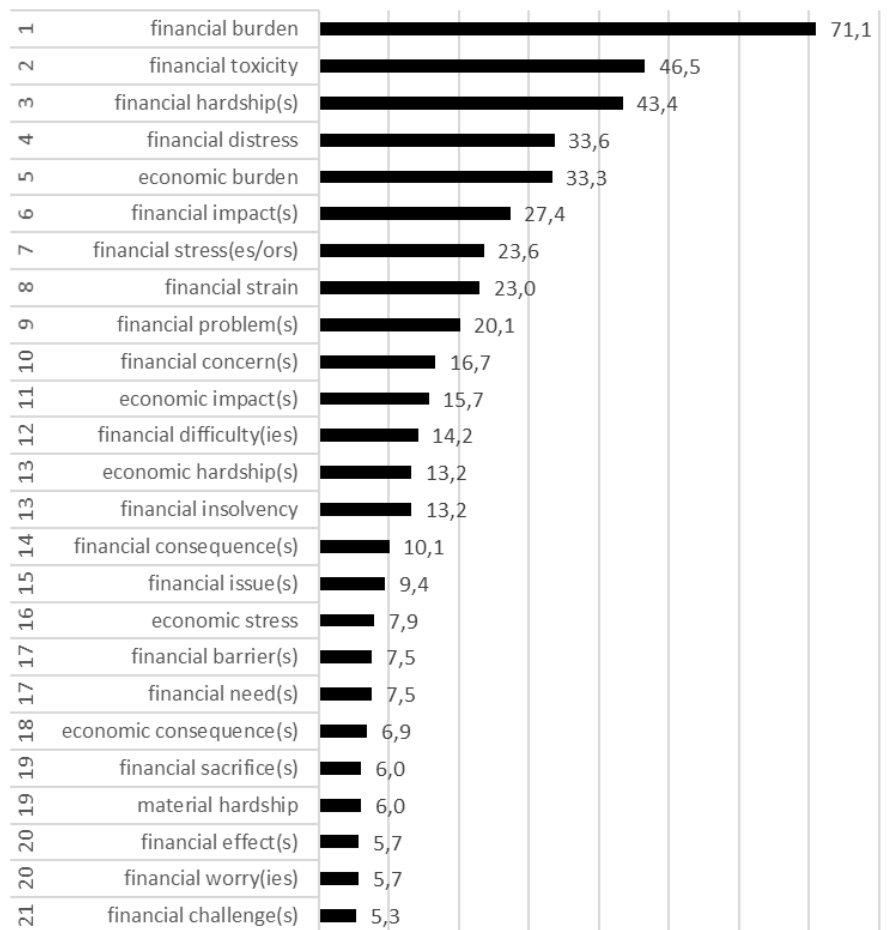
European publications by region¹

Analysis period from 2010 to 2021 for original, peer-reviewed publications.
Classified per United Nations "Standard Country or Area Codes for Statistical Use".

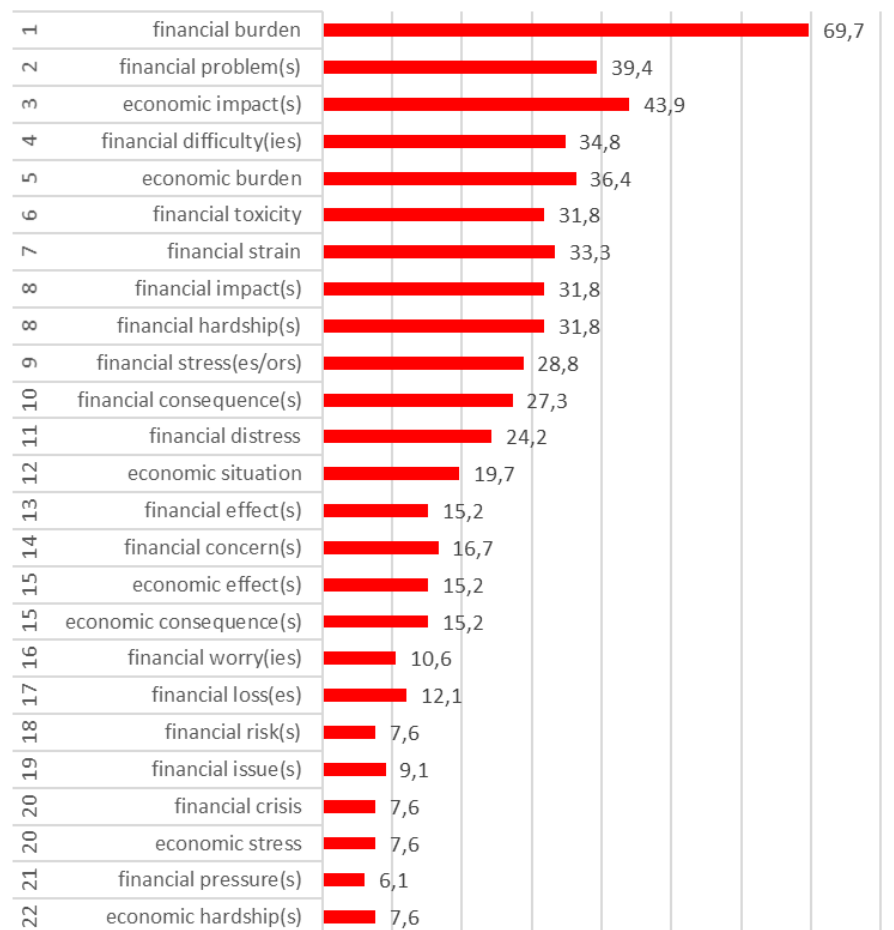
¹from Schlander et al.,
The Lancet Oncology
25 (2024): e152-e163

«Financial Burden» / Terminology

A. United States



B. Europe



¹from Schlander et al.,
The Lancet Oncology
25 (2024): e152-e163

Terminology¹: *Ranking of terms mentioned at least once. Boxes highlight terms exclusive to top 25 in that region.

OEI Task Force Socioeconomic Impact Research

Initial Working Hypothesis /

followed by a «Best Fit Framework Synthesis» Subproject¹

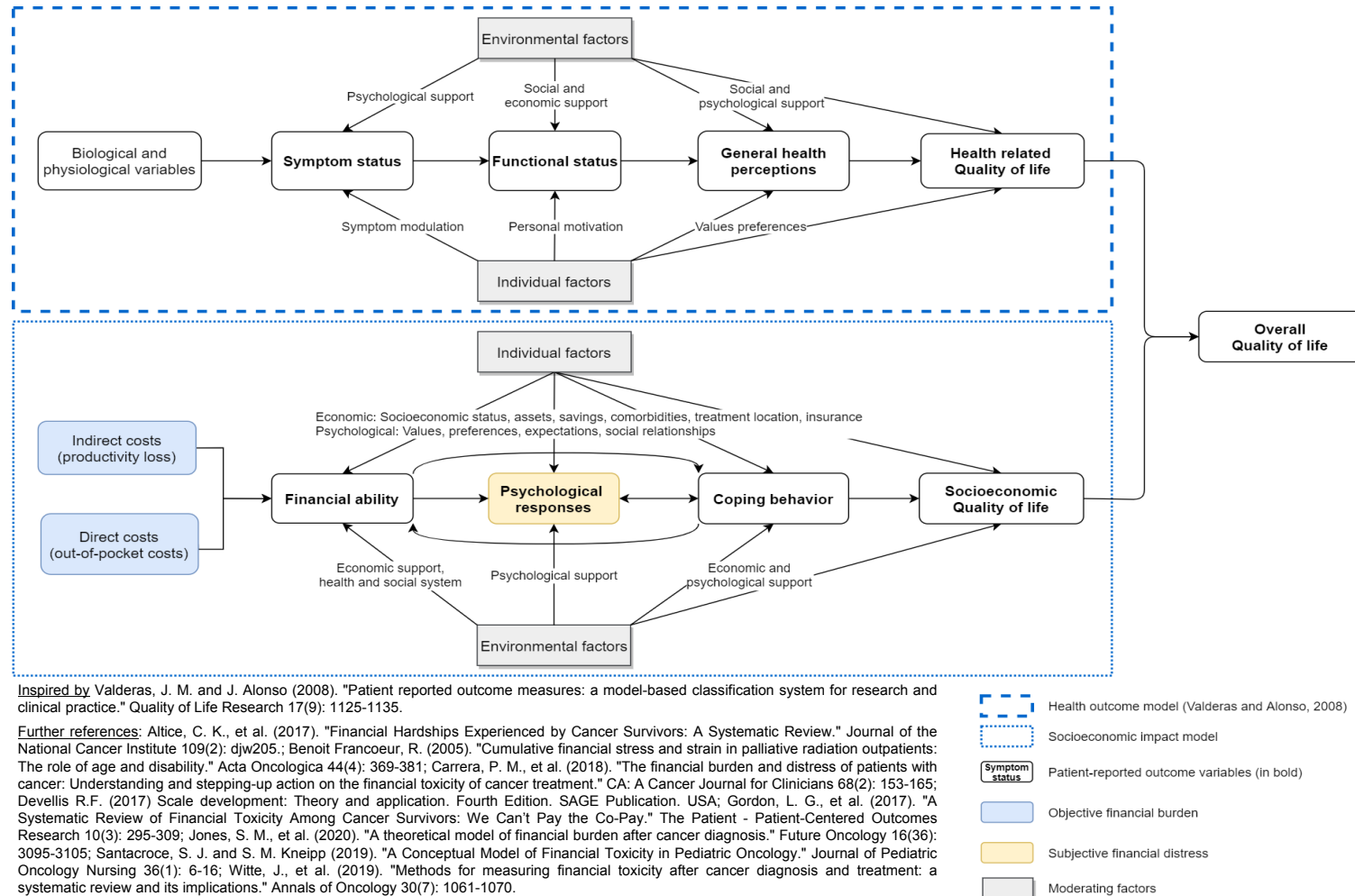
Health-Related Outcomes

[e.g., Health-Related QoL in the extra-welfarist tradition of health economics]

Socioeconomic Outcomes

[by design largely neglected by most traditional PRO measurement instruments]

Note role of
ex ante socioeconomic status
as a moderator of outcomes



¹Pham et al. (2023)

Future Socioeconomic Impact Research

Definitions & Taxonomy, Conceptual Framework, Research Priorities

The socioeconomic impact of cancer on patients and their relatives: Organisation of European Cancer Institutes task force consensus recommendations on conceptual framework, taxonomy, and research directions

Michael Schlander, Wim van Harten†, Valesca P Retèl, Phu Duy Pham, Julie M Vancoppenolle, Jasper Ubels, Olaya Seoane López, Camila Quirland, Felipe Maza, Eline Aas, Bernd Crusius, Agustín Escobedo, Nora Franzen, Jeanette Fuentes-Cid, Diego Hernandez, Karla Hernandez-Villafructe, Iva Kirac, Artus Paty, Thierry Philip, Sigbjørn Smeland, Richard Sullivan, Elena Vanni, Sinisa Varga, Thomas Vermeulin, Rachel D Eckford*

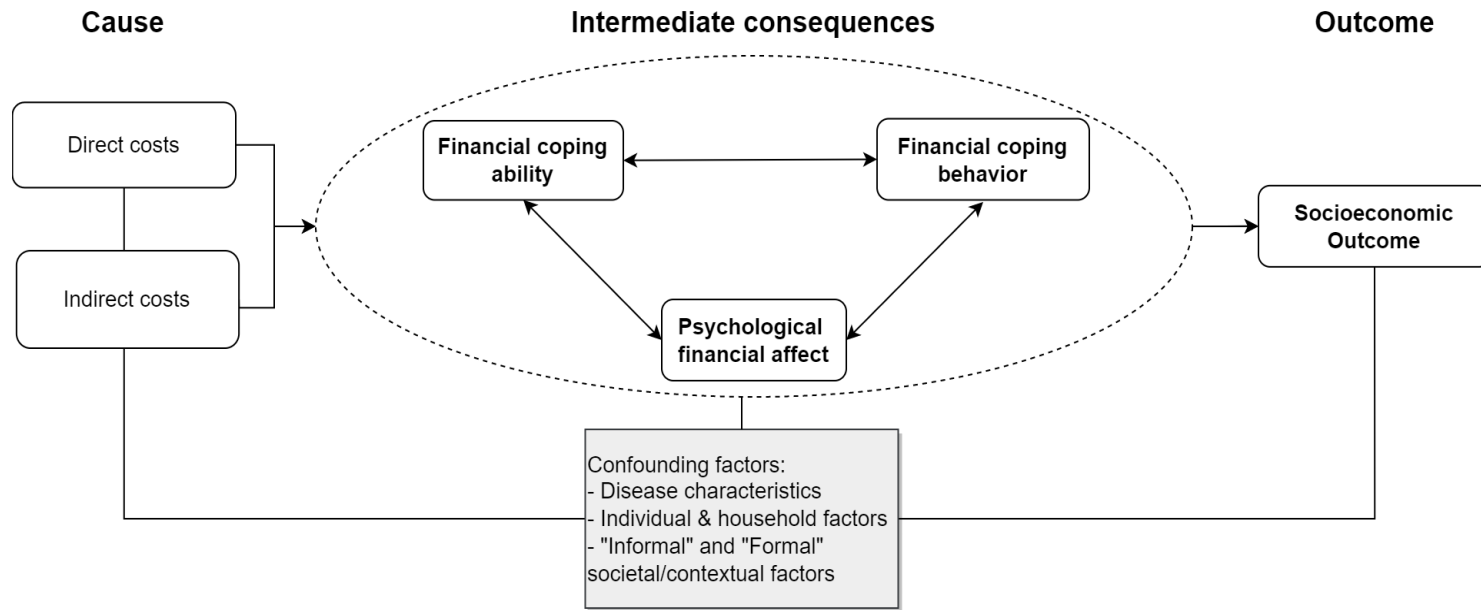
THE LANCET
Oncology

The Lancet Oncology 25 (2024) e152-e163

OEI Task Force – Conceptual Framework

Proposed General Framework

Causes and Outcomes

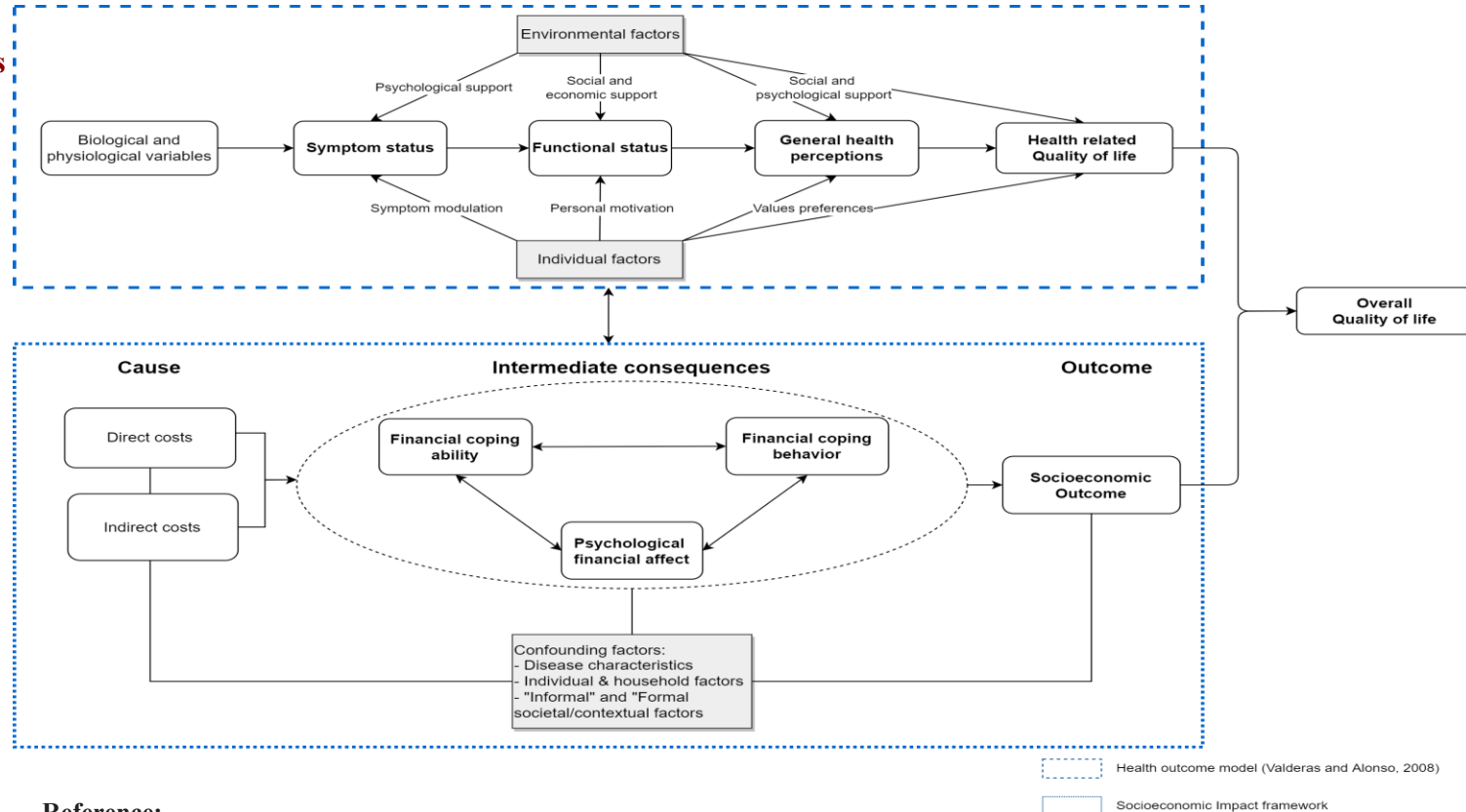


OEI Task Force – Conceptual Framework

Integration Framework

Health-Related Outcomes

[e.g., Health-Related QoL in the extra-welfarist tradition of health economics]



Reference:

Valderas JM, Alonso J. Patient reported outcome measures: a model-based classification system for research and clinical practice. Qual Life Res. 2008 Nov; 17 (9): 1125-35. doi: 10.1007/s11136-008-9396-4. Epub 2008 Oct 3. PMID: 18836850.

New Health Economic Perspectives for HTA

«Heidelberg Health Economics Summer School» 2024

The Theory & Practice of HTA incl. Health Economic Evaluation
Recent Experience & Future Development / Evolution
Special Issues: OMPs, ATMPs, Precision Medicine
Are There Promising Alternative Approaches, *if any?*

Brunico, Alto Adige, Italia
[Bruneck, South Tyrol, Italy]
September 23 - 28, 2024

For more information

- (a) please contact => ms@michaelschlander.com
- (b) or see: www.innoval-hc.com / Summer School