

# Principles for Understanding and Measuring Economic Impacts on Patients and Caregivers

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### INTRODUCTION

Patients and caregivers experience economic burdens as a result of illness and encounters with the healthcare system. Researchers and decisionmakers increasingly recognize the importance of considering the full range of economic impacts on patients and caregivers at different stages of the patient journey.

However, significant questions remain as to what, how, and when to include a more extensive range of economic impacts in patient-centered research to inform decision-making.

The purpose of this project is to develop a framework that offers guidance on how to incorporate full range of economic impacts on patients and caregivers into comparative effectiveness research and patient-centered value assessment.

# **METHODS**

A 13-person multi-stakeholder steering committee was established to guide the development of the overall research initiative. We then conducted an environmental scan to identify existing approaches to define economic impacts in health-related research. Based on the findings from the environmental scan, an iterative stakeholder engagement approach was adopted to develop a draft framework (see Table 1). During each engagement activity, participants were asked questions about their experience in capturing economic impacts, recommendations to improve the framework, and potential applications of the framework.

Table 1. Engagement Activities: Participants and Purpose

	Steering Committee	Key Informant Interviews	Roundtable	Consensus Meeting	Public Webinar
Date	5 Meetings	Fall 2022	February 2023	March 2023	March 2023
Purpose	Provide ongoing expertise, guidance, and insight	Help define the framework and expand the list of inputs	Validate the framework and begin to explore when economic data should be collected	Prioritize principles to guide the framework and identify steps needed to put the framework into practice	Demonstrate the need for a better approach to economic impact and highlight early lessons learned
Participants	13 Members	9 Interviews	14 Participants	15 Participants	115 Registrants
Stakeholder Perspectives*	4 Patient/Caregiver 4 Researcher 2 HTA Researcher 2 Policy 1 Payer 1 Employer	6 Patient/Caregiver 3 Researcher 2 Policy 1 Payer 1 Employer	6 Patient/Caregiver 4 Researcher 1 Payer/Researcher 1 Employer 2 Industry	8 Patient/Caregiver 5 Researcher 2 Industry	28 Patient/Caregiver 36 Industry 21 Researchers 30 Other (payer, employer, not reported)

### Contact

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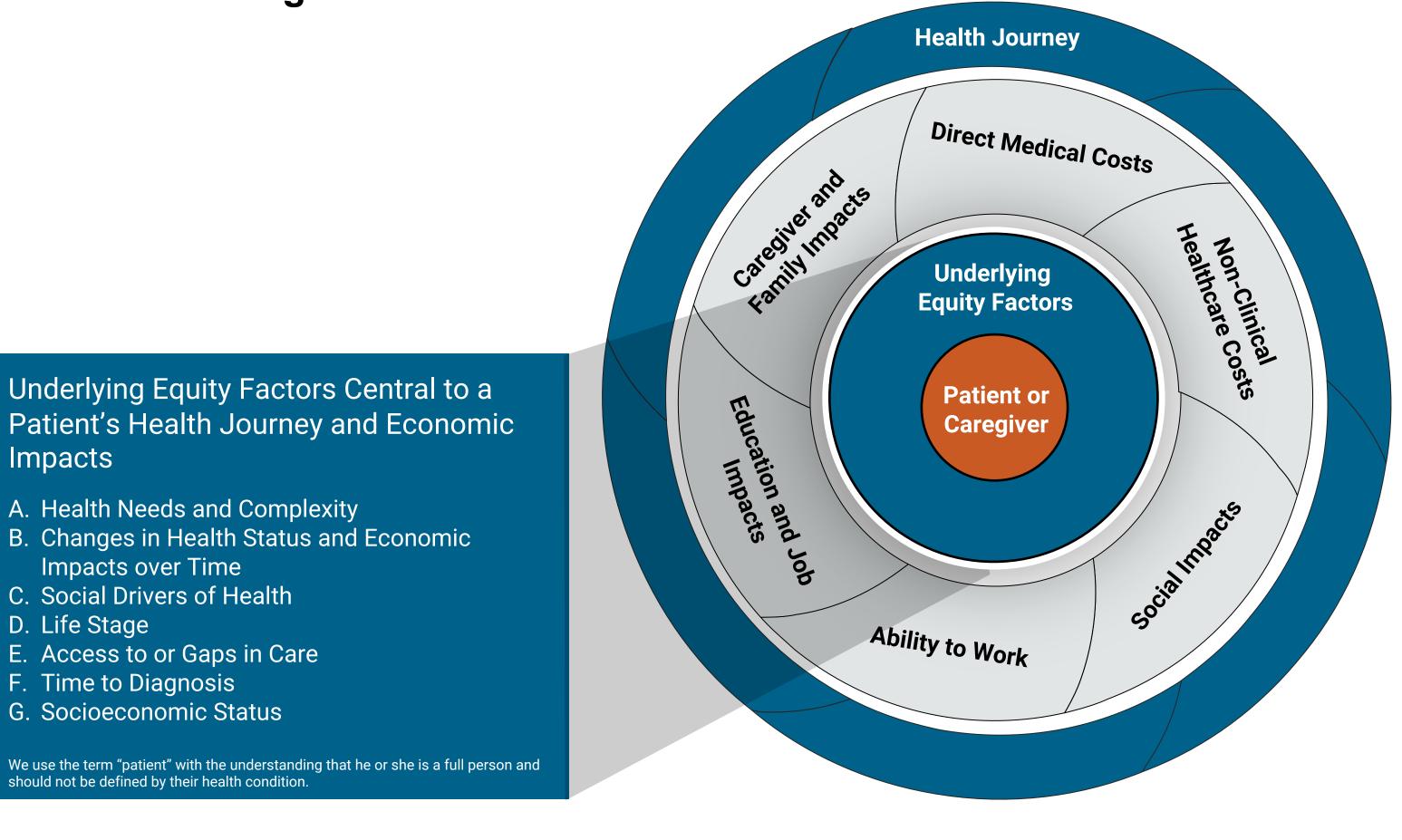


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# RESULTS

Based on documented stakeholder input, a visual aid to represent the framework was developed (see Figure 1 and Tables 2a and 2b). Engagement insights resulted in increased inputs (30 to 67) and domains (5 to 6), more person-centered language, and creation of principles to guide Framework application. Emphasis on the intersectionality of economic impacts and health equity resulted in additional visual representations in the framework. Framework categories are overlapping and bi-directional.

Figure 1. An Interactive Framework to Understand Economic Impacts on Patients and Caregivers.



- Social isolation

Quality of life

- Relationship loss

### Table 2a. Detailed Inputs for each Domain

A. Health Needs and Complexity

Impacts over Time

Time to Diagnosis

6. Socioeconomic Status

). Life Stage

Cost of delayed care

Social Drivers of Health

. Access to or Gaps in Care

#### The Person's Health Journey **Non-Clinical Healthcare Costs Social Impacts Direct Medical Costs** Transportation (gas, parking, public Insurance Costs Access to Social Services (food, housing, transit, airfare, etc.) - Co-insurance & co-payments transportation, prescription drug (medications, doctor visits, emergency Housing/Vehicle Modifications costs, hospital stays, ambulance, etc.) Domino Financial Impacts Assistive Technology/Devices/Clothing Insurance premiums Loss of savings, bankruptcy, dependent Childcare/Elder Care care costs, legal fees - Ability/Inability to obtain life insurance Device Costs (stints, needles, etc.) Non-traditional Healthcare (CBD, acupuncture, medical foods, meditation, Ability to pay for rent/mortgage/utilities Durable Medical Equipment and Medical fitness services, etc.) Ability to pay for food, clothing Supports (wheelchairs, walking aids, Clinical Trial Costs (cost of participating in prosthetics, assistive clothing, etc.) Care coordination time Care Navigation Assistance Quality of Network/Access to Providers Insurance navigation time Non-covered Medical Costs (new Travel time Ability to maintain treatment regimen healthcare innovations and tests, out-ofnetwork costs, etc.) Psychosocial Impacts - Psychosocial a result of health condition Downstream/Domino Healthcare Costs - Financial stress Misdiagnosis/diagnostic journey Side effect costs Social Costs Co-occurring health conditions Lack of social capital

### PRINCIPLES TO GUIDE FRAMEWORK USE

- > Invite patients, caregivers, and family members to serve as advisers, partners, and/or coauthors
- Start with the whole person
- Acknowledge the complexity of the health journey
- Incorporate health equity throughout
- Clarify research goals
- Use the Framework and patient health journeys to identify priorities

# CONCLUSIONS

Engagement with diverse stakeholders in the US yielded a Framework that focuses on patient and caregiver economic impacts. Participants emphasized the overlapping and bidirectional nature of these impacts and recommended a new approach to capturing this information. Researchers and decision makers can use the framework to:

- Partner with patients and caregivers from the outset of a research study to better incorporate the complexity of lived experience.
- Raise attention to the underlying factors that should be addressed when capturing economic impacts, especially health equity issues.
- Ensure that a more robust range of economic impacts are included in health technology assessment and research study designs.
- Encourage data collection that captures this broader range of impacts.
- Increase efforts to use mixed-methods research designs to understand these economic impacts.

The Person's Health Journey

### Table 2b. Detailed Inputs for each Domain

Ability to Work

Lost Wages

Sick Days

Disability

Productivity

Presenteeism

Job Retaliation

Unemployment Benefits

Social Security Benefits

#### Caregiver and Family Impacts Education and Job Impacts · Educational Attainment (high school, two- Insurance/Care Navigation Time year college, trade school, military, Travel/Transportation college, graduate school) Cost of Delaying or Forgoing Care Early Retirement Ability to Work Job Choice Sick Days Employment Options Adequacy of Health Insurance Coverage Lost Wages Job Re-Training Forced Early Retirement Retirement Savings Job Choice Limitations on Employment Choice Job Retaliation Forced Retirement Sibling Educational Attainment Psychosocial Impacts Injury or Illness as a Result of Providing

