

‘Facts and figures: Cost Savings and Health Literacy’

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Facts and figures: Cost Savings and Health Literacy

Agenda for today:

- Why consider cost data?
- Some facts and figures through the decades (HLS-EU to M-POHL19)
- Prior Research
- Revisit our HLS-EU Conceptual Model
- Diabetes Literacy EU- FP7 (costing & cost-effectiveness - some findings)
- M-POHL HLS19 'Health literacy and health-related Quality of life as a mediator for health costs'
- Reflect on the intersection of health literacy and 'value'
- Looking forward:
 - Future research to provide evidence that 'Investing in strengthening health literacy can achieve cost savings'
- Q and A

Why consider cost data?

Health economic evaluations require **cost data as
a key input!**

Some Facts and Figures

- **OECD** estimates a **saving of 3-5%** of the annual health budget by improving the health literacy of people
- **US** estimates an annual cost of **\$73 billion (US National Academy on the Ageing Society, 1998)**
- **Canada** estimated limited health literacy **cost more than \$8 billion per annum (2009)**

(Kickbush et al. 2013, page 8)

(Kickbusch, Ilona; Pelikan, Jürgen M.; Apfel, Franklin; Tsouros, Agis D. (2013): Health literacy: The solid facts. World Health Organization (WHO) Regional Office for Europe, Copenhagen)

Some Prior Research

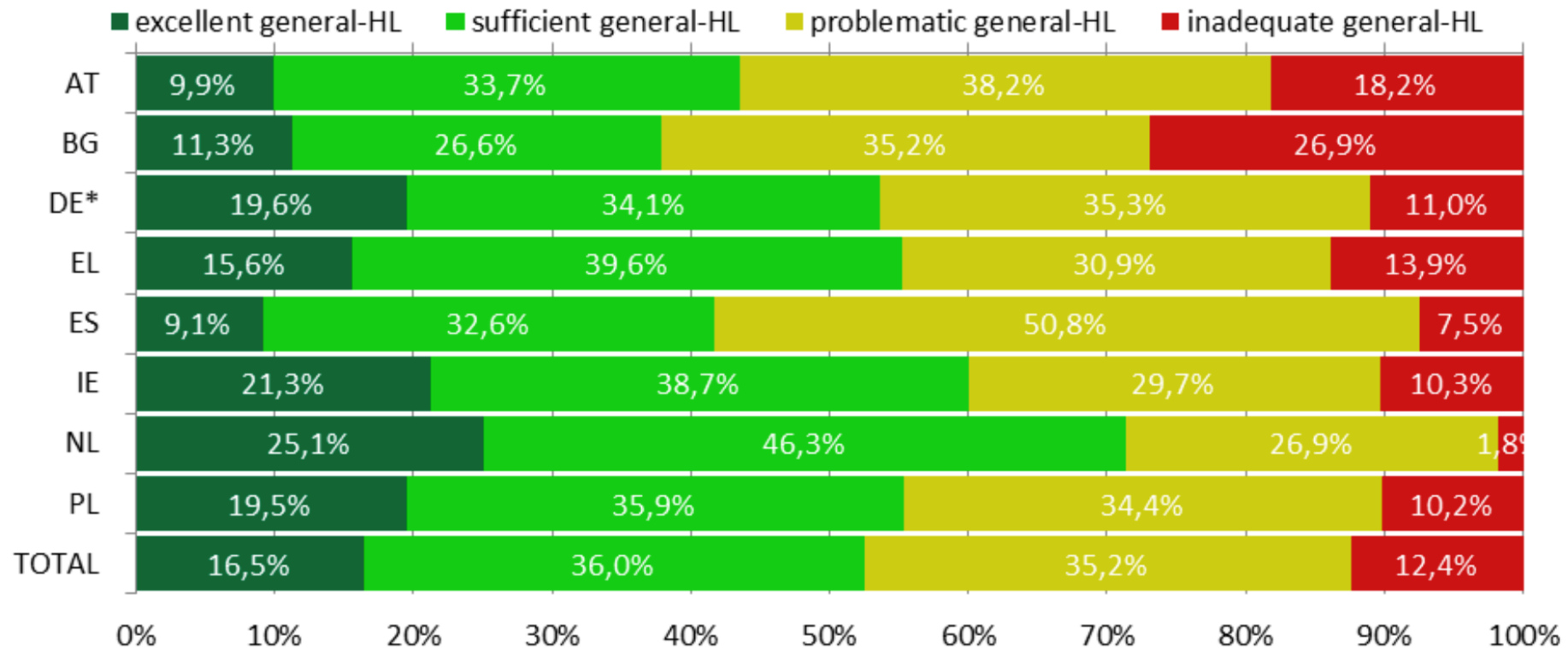
- Literature is **sparse** on the association between health literacy levels and economic costs (Palumbo et al, 2017; Vandenbosch et al, 2016; Berkman et al, 2011; Eichler et al, 2009)
- Focus on the association between:
 - Low health literacy levels and increased ***risk of hospitalization*** and ***30-day readmission rates*** (Shahid et al, 2022; Baily et al, 2015)
 - Health literacy levels and ***quality of life*** (Zheng et al, 2018)
- Focus on **functional health literacy** rather than **critical** health literacy

Key Findings HLS-EU to M-POHL (2012 – 2021)

	HLS-EU 2009-2012	M-POHL 2019 - 2021
Number of countries	8	17
% Pop with Inadequate + Problematic ('Limited Health Literacy')	47% (27-61%)	46% (25-72%)
Vulnerable Groups with 'Limited Health Literacy'	<ol style="list-style-type: none"> 1. Financially deprived 2. Lower self perceived social status 3. Lower education level 4. Older population 	<ol style="list-style-type: none"> 1. Financially Deprived 2. Lower self perceived social status 3. Lower education level 4. Older population
Social Gradient	Exists	Persists

HLS-EU Findings (2012)

Graph 10: Percentages of General Health Literacy Levels Thresholds for Countries and Total

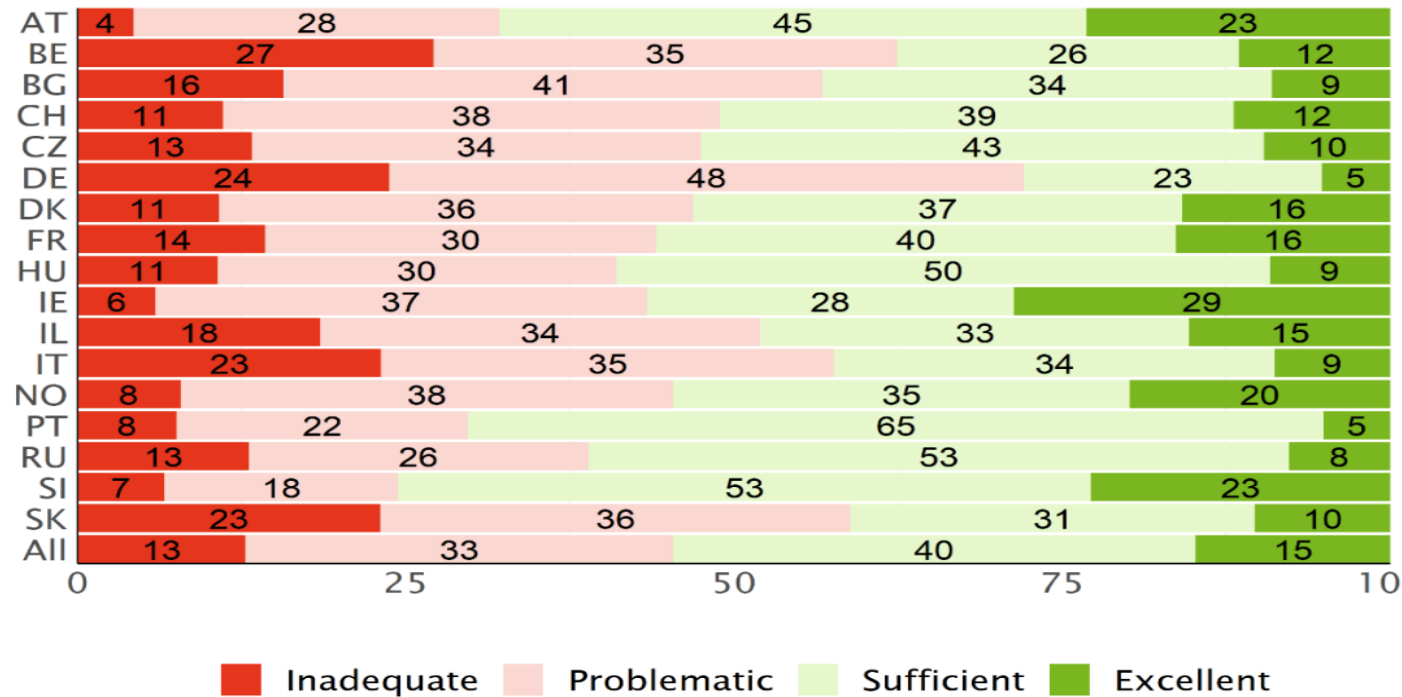


Source HLS-EU Consortium

M-POHL HLS 19 Results (2021)

Figure 5.4:

Percentage of respondents by categorical level of General HL as measured by the HLS₁₉-Q12, for each country and the mean for all countries

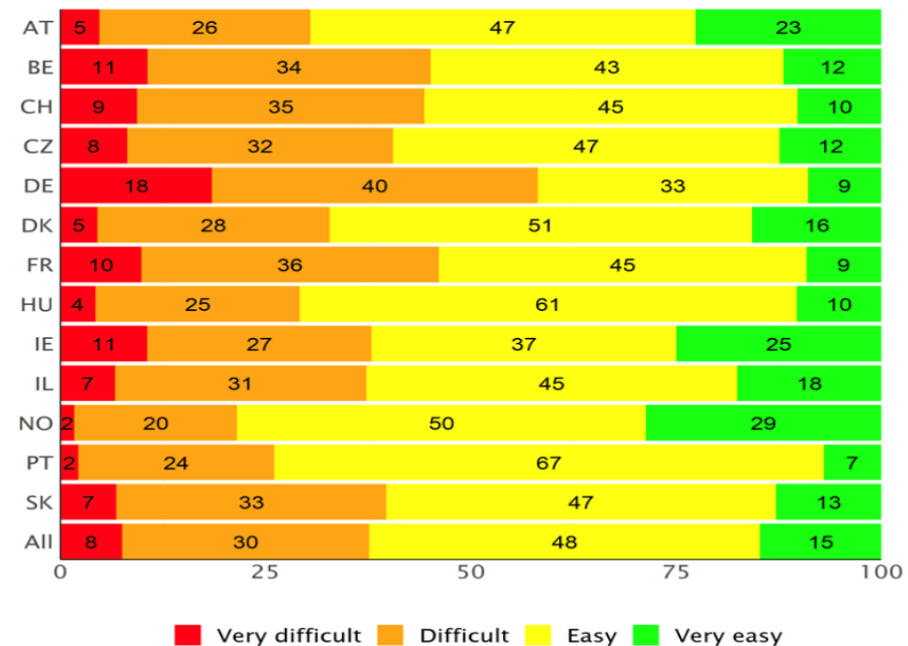


Source: HLS₁₉ Consortium

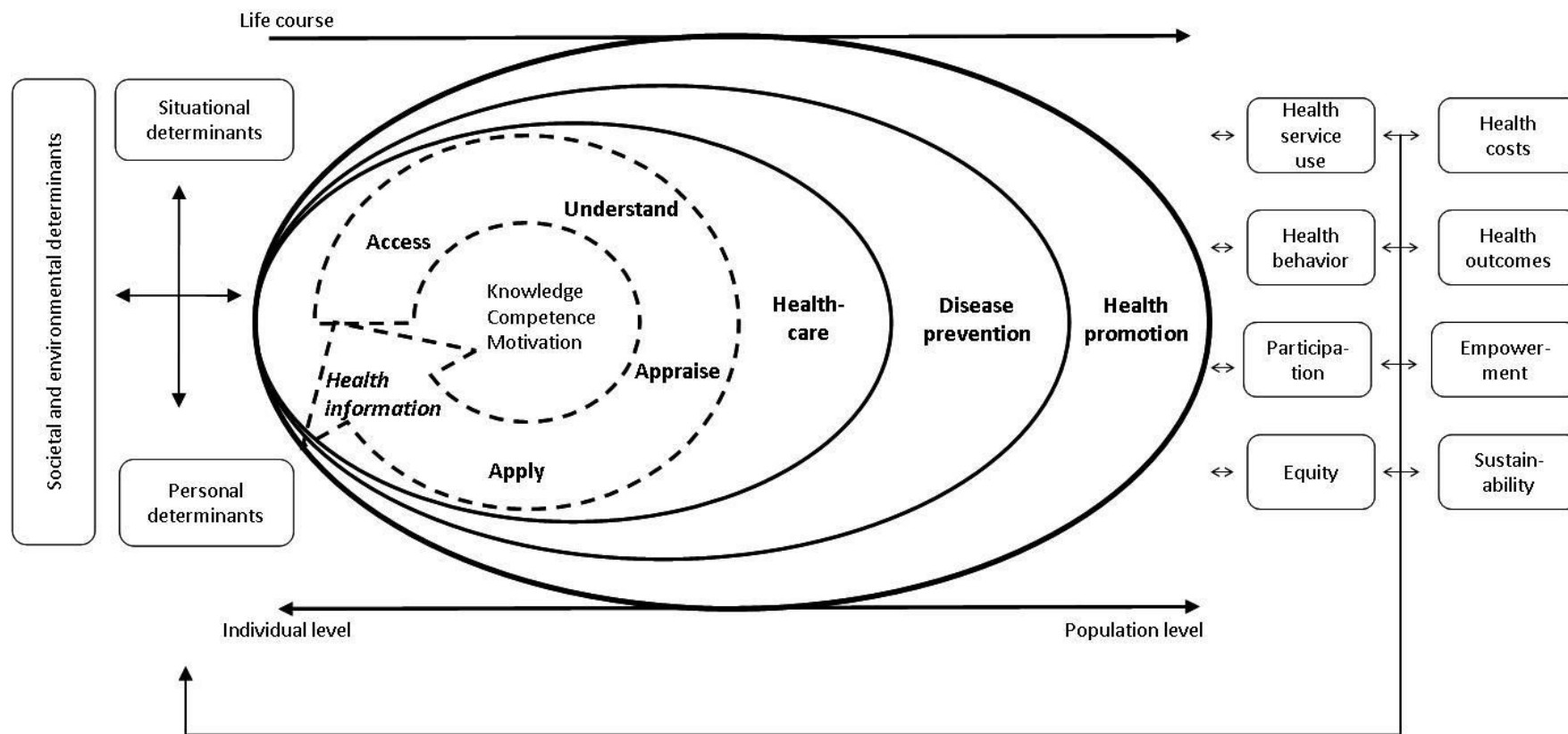
M-POHL HLS19 Results for Digital Health Literacy (2021)

Figure 12.2:

Average Percentage Response Patterns (APRP) for the HL-DIGI scale, for each country and mean of all countries (equally weighted)



Revisiting our HLS-EU Conceptual Model



Diabetes Literacy EU-FP7

Open Access

Research

BMJ Open Patient level cost of diabetes self-management education programmes: an international evaluation



Gerardine Doyle,¹ Shane O'Donnell,¹ Etáin Quigley,¹ Kate Cullen,¹ Sarah Gibney,¹ Diane Levin-Zamir,² Kristin Ganahl,³ Gabriele Müller,⁴ Ingrid Muller,⁵ Helle Terkildsen Maindal,⁶ Wushou Peter Chang,^{7,8} Stephan Van Den Broucke⁹

Open access

Original research



BMJ Open Understanding the cost of care of type 2 diabetes mellitus - a value measurement perspective

Gerardine Anne Doyle ,^{1,2} Shane O'Donnell,^{1,2} Kate Cullen,¹ Etáin Quigley,³ Sarah Gibney,^{4,5} The Diabetes Literacy Consortium

M-POHL HLS19 International Report Chapter 14

‘Health literacy and health-related quality of life as a mediator for health costs’

Three countries: Denmark, Ireland and Norway

Two research questions:

1. To what extent does General HL (HLS19-Q12) have implications for health-related quality of life as measured by the EQ-5D-5L instrument?
2. To what extent does General HL have implications for absenteeism from work due to health problems?

‘Health literacy and health-related quality of life as a mediator for health costs’

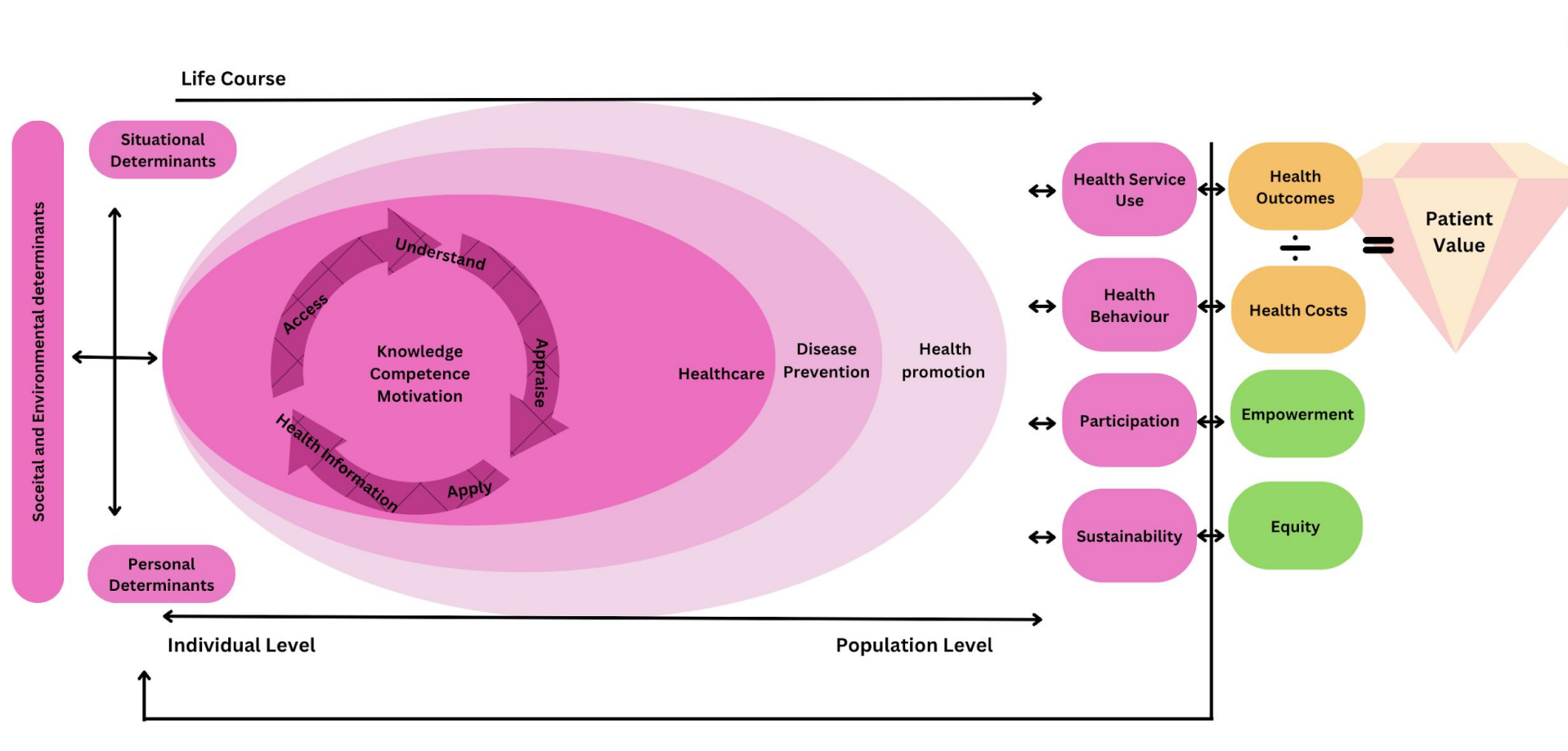
- Our Findings for RQ1:

- We found a significant association between General HL and health related quality of life.
- The magnitude of the association between General HL and HRQoL is larger than that for the association between education and HRQoL highlighting the importance of HL interventions to improve General HL levels for adult populations.

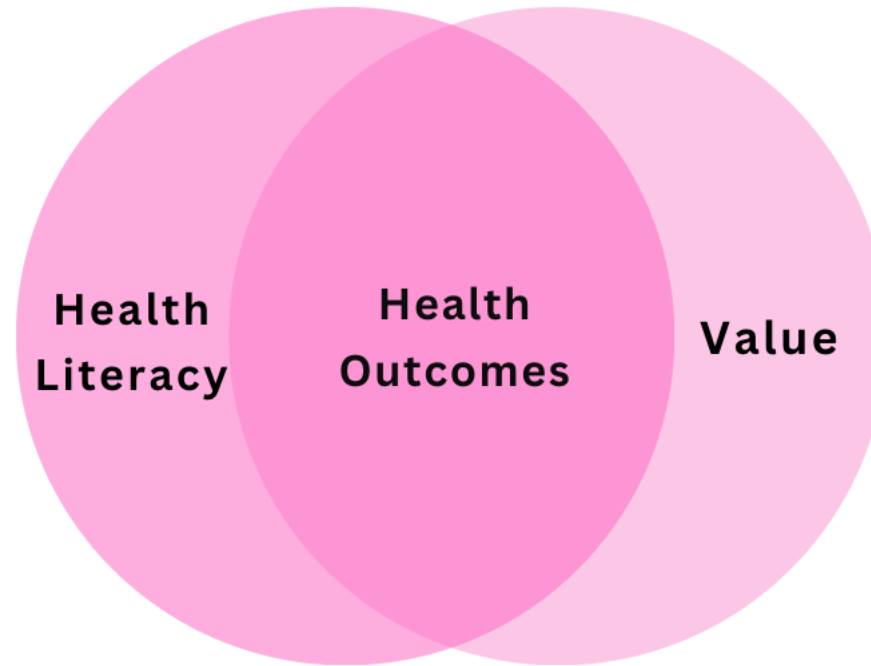
- Our Findings for RQ2:

- For both Norway and Denmark, we found a negative correlation between HL and absenteeism was observed. As General HL increases there is a decrease in absenteeism from work due to health problems.
- For Ireland we found that absenteeism decreases where the General HL score exceeds 70%

The Intersection of Health Literacy and **‘Value’** in Health Care



The Intersection of Health Literacy and **‘Value’** in Health Care



Porter and Teisberg (2006) The Value Equation: Health Outcomes / Cost

‘Cost savings and health literacy’ – Invest in Measurement

- A call to action for future research studies to collect granular cost data:
 - **To deepen our understanding of the complexity of cost drivers /predictors of costs** associated with differing levels of Health Literacy for differing vulnerable groups and at the:
 - Person level
 - Organisational level
 - Societal level
 - **Longitudinal studies** of persons with differing levels of health literacy living with particular NCDs – cancer, diabetes, heart disease, respiratory disease (leading causes of death)
 - **Co-design strategies** (with organisations and people) **to strengthen health literacy**
 - **Conduct pre and post comparative studies** of the impact of such strategies on health literacy levels and associated health costs incurred

A call to action for policy makers

- **To invest in rigorous measurement of the cost implications of health literacy levels:**
 - to provide evidence to inform future health literacy actions and policies which can **save costs**
 - to **reduce the economic burden of inadequate/problematic Health Literacy on our health systems and on our people**

M-POHL

Action Network on Measuring Population
and Organizational Health Literacy
of WHO-Europe



Q & A

Thank you

Gerardine