

# EHMA 2024

Shaping and managing  
innovative health ecosystems

# Impact of malnutrition risk on patient outcomes and hospital costs

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Politehnica University of Bucharest, Bucharest, Romania

#EHMA2024

# 225 years of excellence in healthcare...



**1882**  
HMP  
Fundação do Hospital Maria Pia

**1884**  
HJU  
Criação do Hospital Joaquim Urbano

**1939**  
MJD  
01-09-1939: Inauguração da Maternidade Júlio Dinis

**1980**  
CGM  
Criação do Centro de Genética Médica Doutor Jacinto Magalhães

**2007**  
CHP  
01-10-2007: Constituição do CHP, com a integração do HSA, MJD e HMP (DL 326/2007 de 28 Setembro)

**2011**  
CHP  
01-04-2011: Integração do HJU (DL 30/2011 de 2 Março)

**2018**  
CHUP  
CHP passa a denominar-se Centro Hospitalar Universitário do Porto, E.P.E. (DL 61/2018 de 3 Agosto)

**2024**  
ULS SA  
ULS SA, o Decreto-Lei nº 102/2023 de 7 de novembro vem proceder à reestruturação da entidade Centro Hospitalar Universitário de Santo António, E.P.E., com integração dos Agrupamentos de Centros de Saúde do Grande Porto II - Gondomar e do Grande Porto V - Porto Ocidental, passando a denominar-se Unidade Local de Saúde de Santo António, E.P.E.

**1799**  
HGSA  
19-08-1799: Entrada em funcionamento

**1962**  
HML  
27-10-1962: Inauguração do primeiro edifício do Hospital Magalhães Lemos

**2013**  
CHP  
01-05-2013: Integração do CGM (DL 68/2013 de 17 Maio)

**2023**  
CHUdSA  
Com efeitos a 01 de fevereiro de 2023 criada a entidade Centro Hospitalar Universitário de Santo António, EPE, através da fusão da entidade Centro Hospitalar Universitário do Porto, EPE e do Hospital Magalhães Lemos (DL 7-A/2023 de 30-01-2023)



**2023**

**FEVEREIRO**

- 01.02.2023: Fusão CHUPorto e HML – Início CHUdSA
- 10.02.2023: nomeação do CA do CHUdSA

**MARÇO**

- Apresentação de novo regulamento interno do CHUdSA, colocado à discussão pública

**ABRIL**

- Encerramento de contas do exercício económico de 2022 das extintas entidades CHUPorto e HML

**MAIO**

- Aprovação do regulamento interno do CHUdSA, após discussão pública
- Apresentação do pedido de elaboração de Plano de Negócios para a constituição de uma ULS, com prazo de execução de 10 semanas

**JUNHO**

- Encerramento de contas do exercício económico de janeiro de 2023 das extintas entidades CHUPorto e HML;
- Início das reuniões de preparação do plano de negócios para a constituição de uma ULS, com os ACES Gondomar e Porto Ocidental

**JULHO**

- Preparação e apresentação do Plano de Atividades e Orçamento 2023 do CHUdSA, três semanas após a consolidação de contas das extintas entidades CHUPorto e HML
- Estruturação do Plano de Negócios da ULS Santo António
- Abertura de procedimento de recrutamento e seleção de dirigentes intermédios

**AGOSTO**

- Apresentação do Plano de Negócios da ULS Santo António
- Homologação do Regulamento interno do CHUdSA
- Abertura de procedimento de recrutamento e seleção de dirigentes intermédios
- Apresentação do Orçamento 2024 CHUdSA

**SETEMBRO**

- Início de reorganização funcional de algumas Direções de Recursos Partilhados

**OUTUBRO**

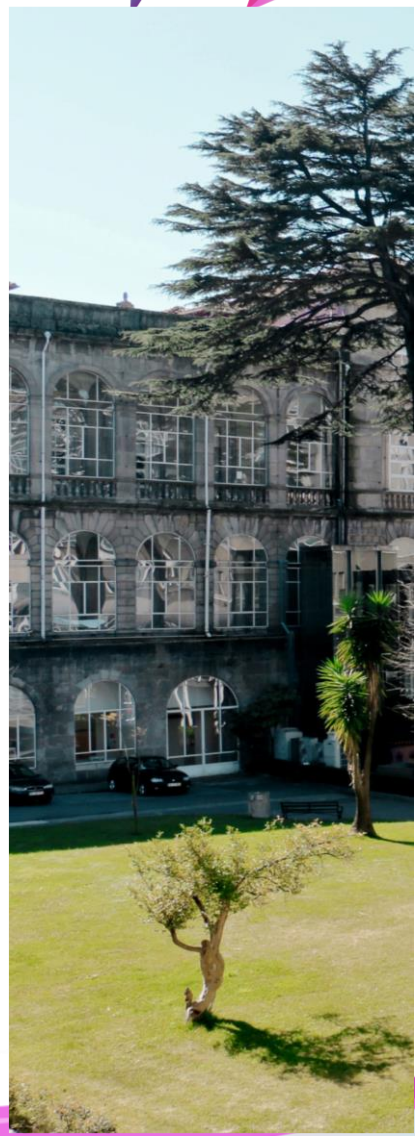
- Aprovação do Plano de Atividades e Orçamento 2023 do CHUdSA

**NOVEMBRO**

- Apresentação do Plano de Desenvolvimento Organizacional ULS SA 2024

**DEZEMBRO**

- Preparação de processo de fusão CHUdSA com ACES



# The International Declaration of Human Right to Nutritional Care

Vienna, 2022

“It is universally recognized that,

(...)

Disease-related malnutrition is a frequent condition caused by virtually any disease, with negative impact on a person’s quality of life, increasing co-morbidities and mortality, and prolonging hospital stays, thereby resulting in unnecessary healthcare costs; therefore nutritional therapy must be administered by trained and competent health care personnel (Dietitians/nutritionists, nurses, doctors, pharmacists, etc.)”



**There’s room for improvement...**

# How healthcare payers can expand nutrition support for the food insecure\*

by Tamara Baer, Matthew Isaacs, Alex Mandel, and Pradeep Prabhala

Poor nutrition is a meaningful health risk factor that affects six in ten adults with a chronic disease.

Across the United States, regions in which a larger percentage of the population does not get enough to eat on a regular basis tend to have higher rates of chronic illness such as diabetes, obesity, and hypertension.

The recent growth of nutritional support programs among US healthcare payers represents a significant step in the right direction for improving members' health and well-being.

\*McKinsey Company, November 2021

# How healthcare payers can expand nutrition support for the food insecure\*

by Tamara Baer, Matthew Isaacs, Alex Mandel, and Pradeep Prabhala

While more research is needed to establish the relationship between nutrition and health (...) payers have a significant opportunity to build on the success of these programs, scale to wider populations, and address the rising societal challenge of food insecurity.

Beyond improving health outcomes for a vulnerable population, expanding nutrition benefits is also great business—with the potential not only to increase members' health and happiness but also to lower overall care costs and provide a point of differentiation in a highly competitive market.

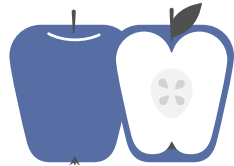
\*McKinsey Company, November 2021

# Assumptions



Hospital discharges in 2021 and 2022

Age  $\geq$  18 years



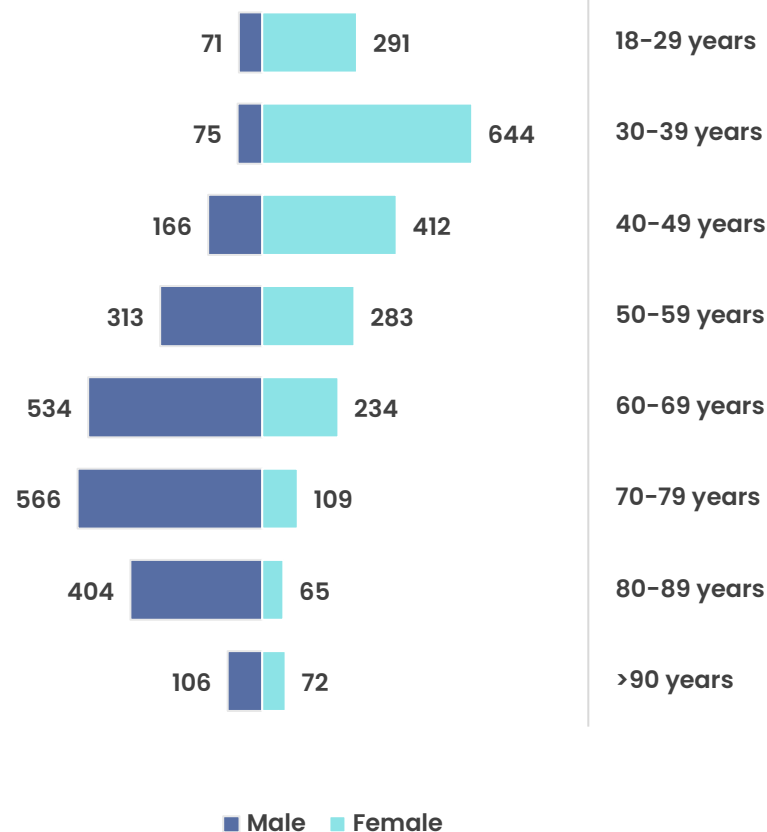
Complete NRS2002 Nutritional Risk Screening



**4.345 inpatients**

Of the 4.345 inpatients screened:

- 728 with no Nutritional Risk
- 3.617 present Nutritional Risk



48% screened at Internal Medicine wards

76% admitted via ER

% readmission in 30 days: 21,1%

% readmission in 90 days: 33,8%



Average Age: 72 years

% Male: 51%

# Managing the Most Expensive Patients\*

**5.477,32€  
Inpatient**

**8,7 days  
LOS**

**5,2%  
Mortality**

**14.364,51 €  
Inpatient**

**20,2 days  
LOS**

**15,6%  
Mortality**

\* Pearl and Philip Madvig  
From the Magazine (January–February 2020) Robert

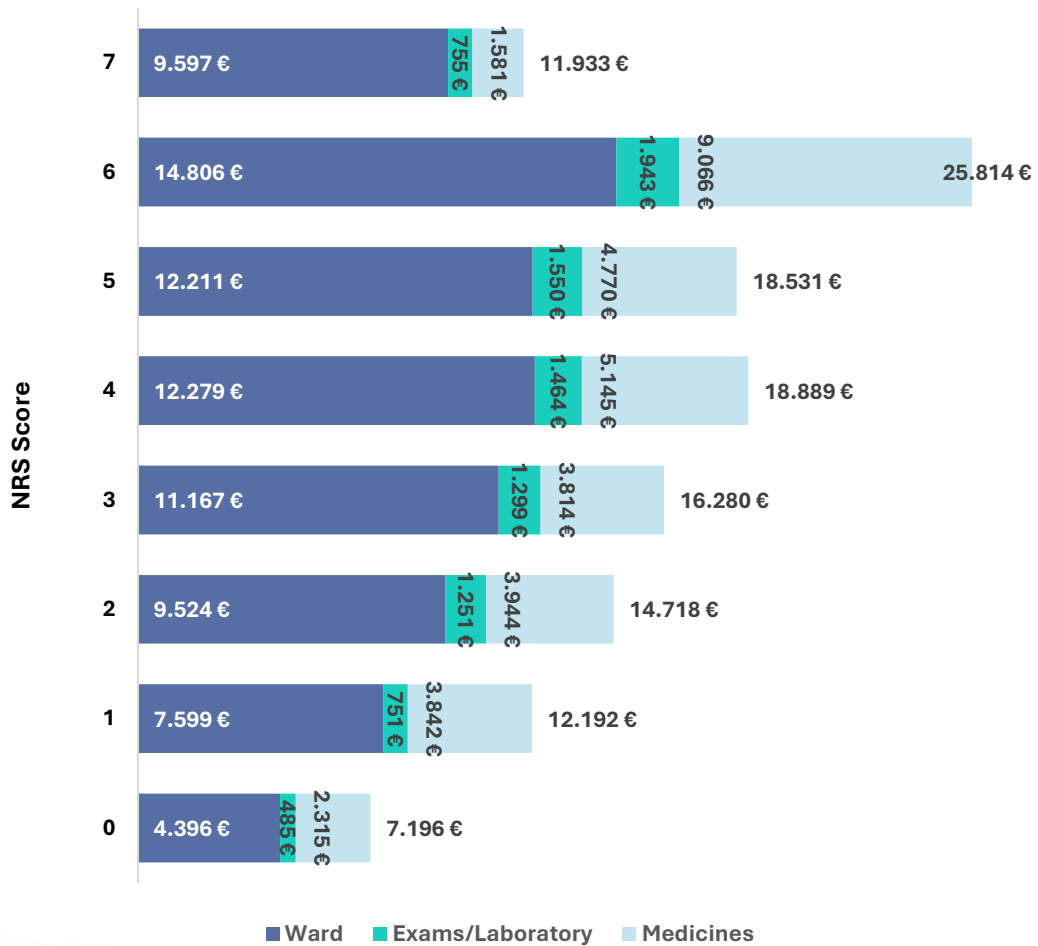


# Managing the Most Expensive Patients\*

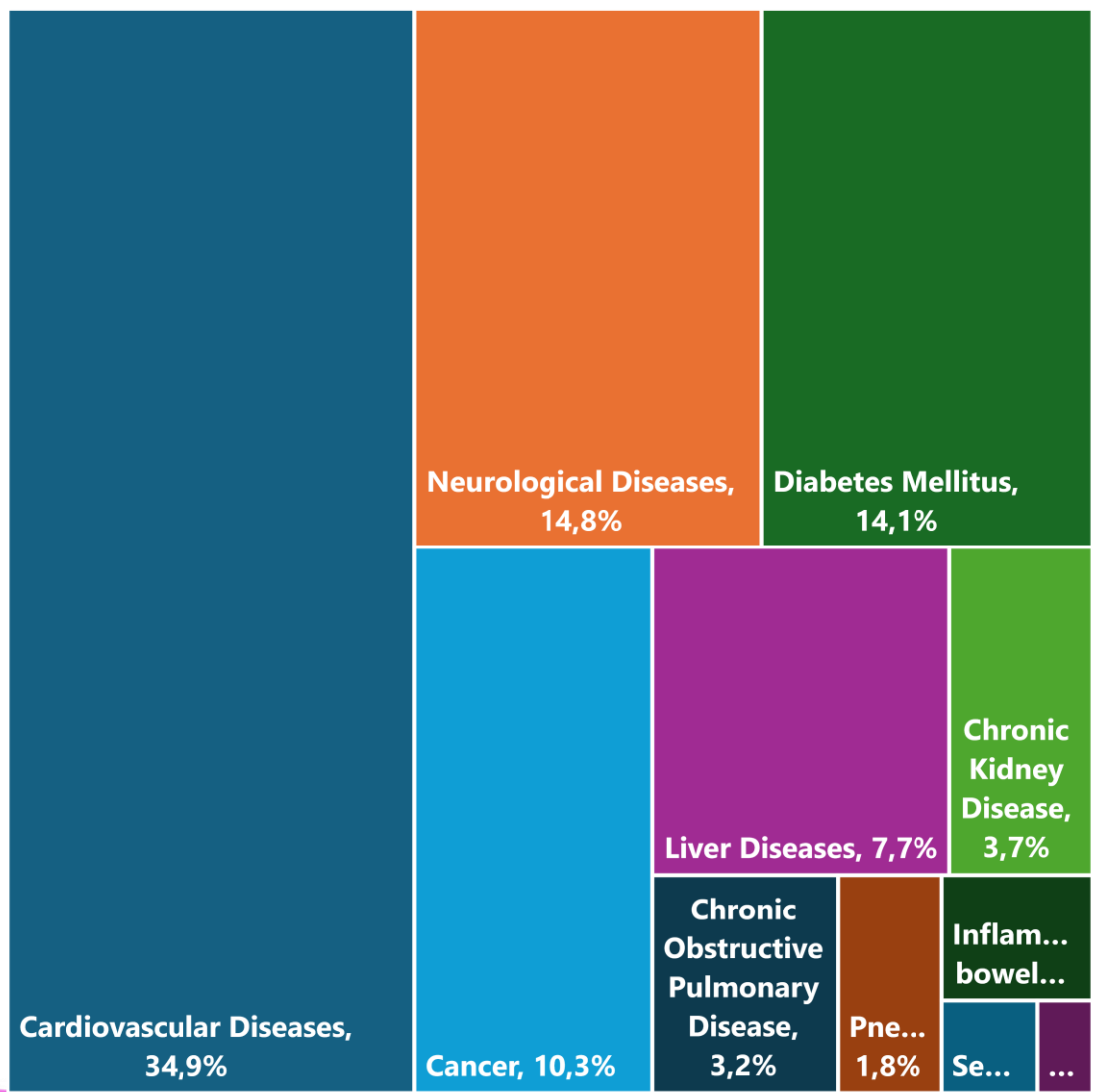
<b>5.477,32€ Inpatient</b>	<b>8,7 days LOS</b>	<b>5,2% Mortality</b>
<b>7.195,73 € No Risk</b>	<b>8,3 days</b>	<b>0,4%</b>
<b>15.807,38 € Malnutrition Risk</b>	<b>22,6 days</b>	<b>18,7%</b>

\* Pearl and Philip Madvig  
From the Magazine (January–February 2020) Robert

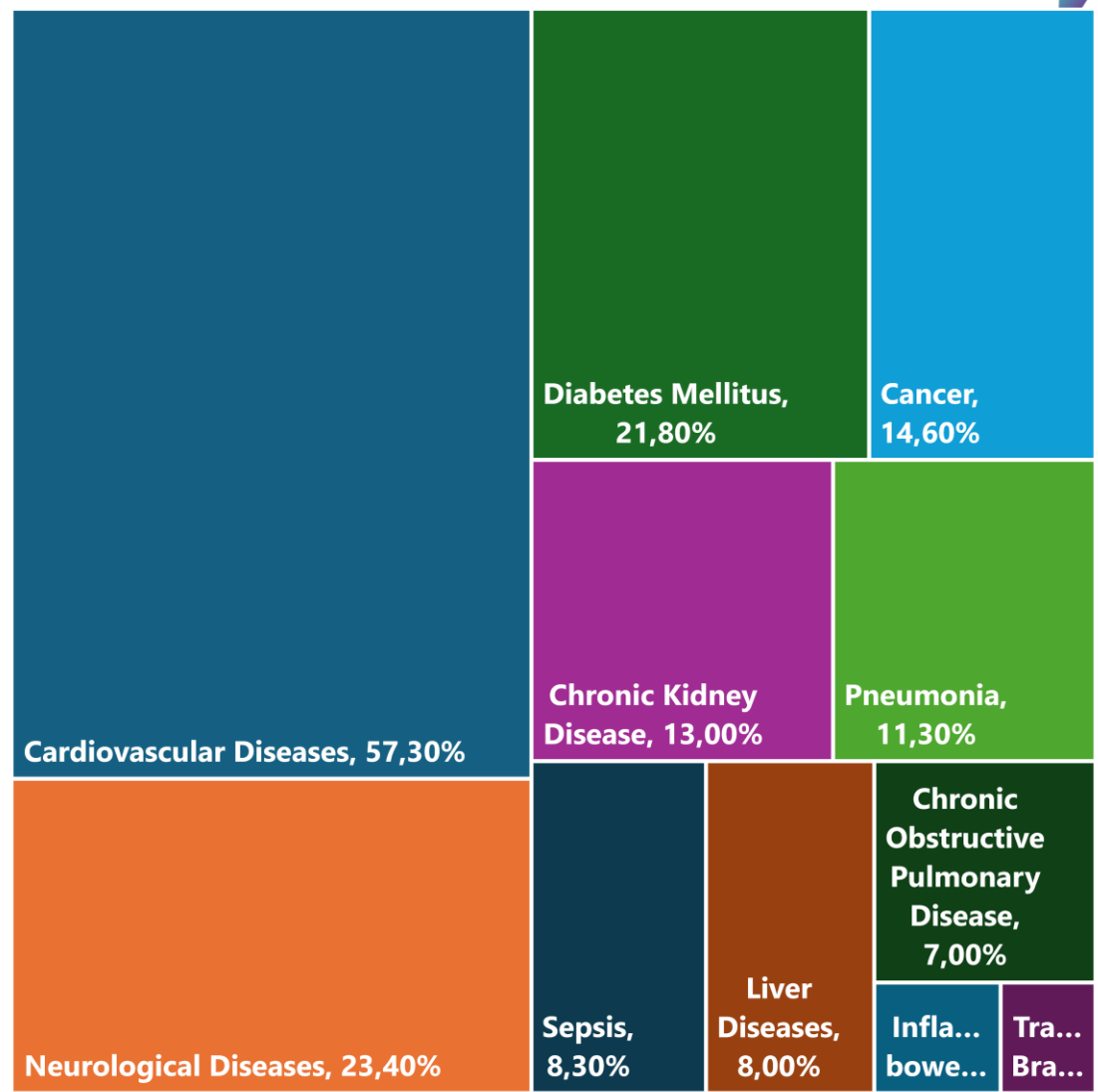
# Cost Decomposition and Dispersion

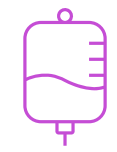
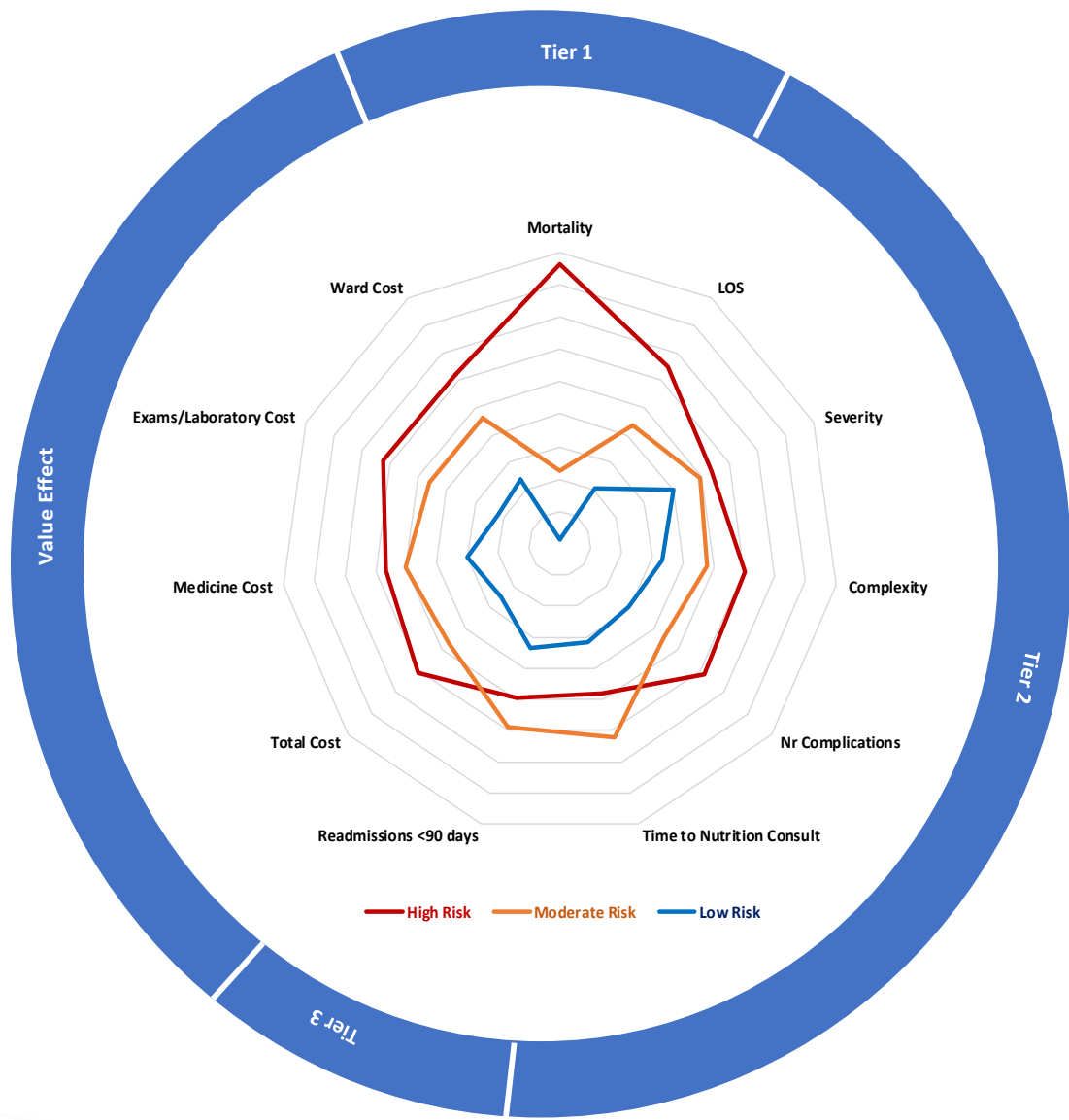


No Risk



Malnutrition Risk





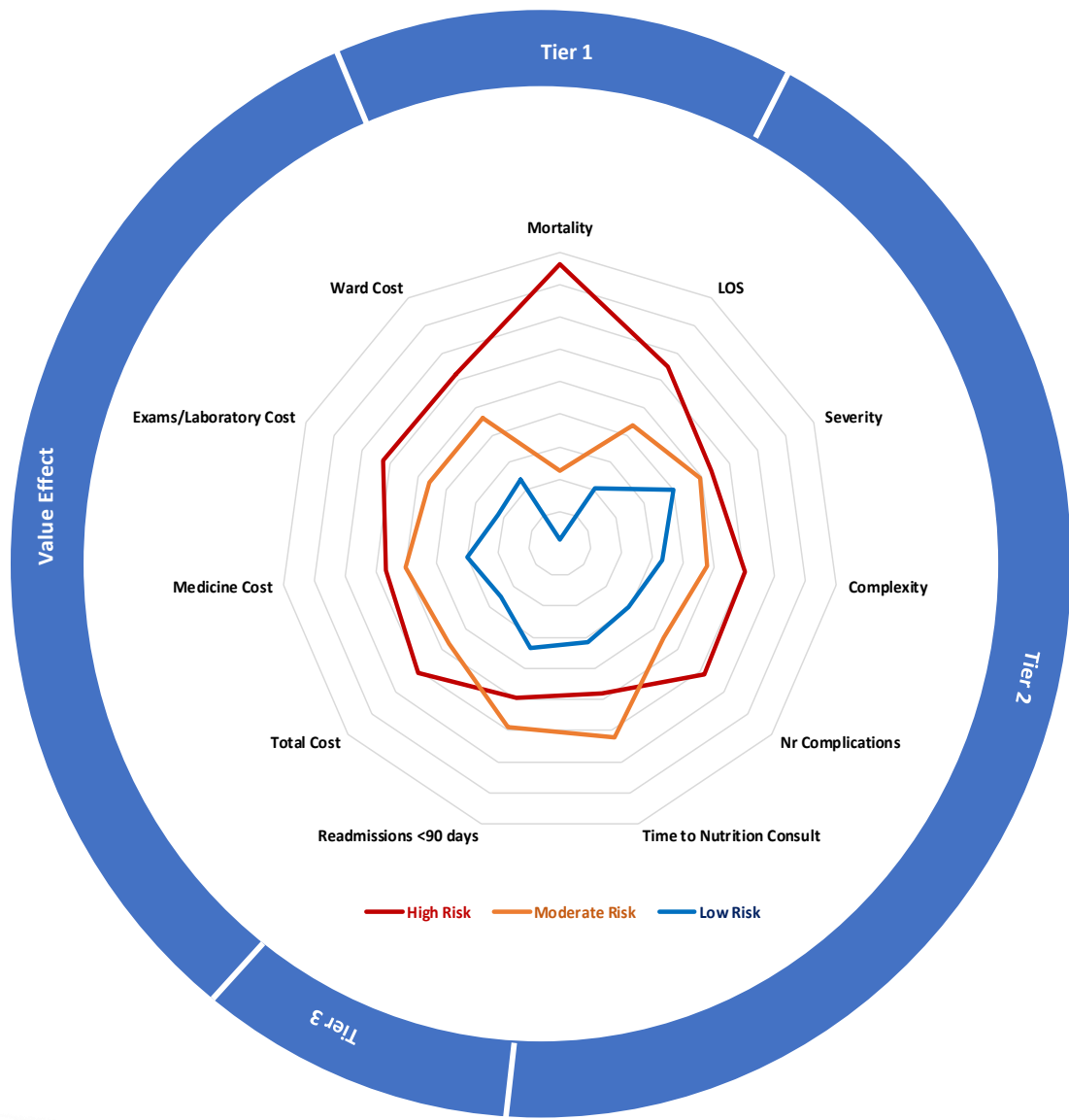
Nutritional risk is associated to poorer outcomes and higher hospitalization LOS



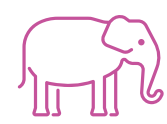
Mortality rate higher in patients with severe nutritional risk



Higher Incidence of complications



Nutritional risk is associated with higher readmissions



The higher the nutritional risk the higher the cost – medicine, exams/labs and ward

# Where do we go from here?



Portuguese Health System 2024 reform, where primary and hospital care are integrated, with changes in financing to a capitation population-based system;



Opportunity to address DRM before hospitalization occurs and avoid the large prevalence of malnutrition risk on hospitalized population;

# Where do we go from here?



Healthcare professional's lack of awareness of importance of nutritional care is a fact. Integrating Nutritional Care across care continuum and assuring its benefits for population disease burden is like the Columbus egg, that no one ever put on practice. It is innovative that in three years it may be possible to show practical results.



**Think outside the box**



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# Thank you

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