

Doença de Alzheimer

Audiência Pública na Comissão de Defesa dos Direitos da Pessoa Idosa

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Definição de demência

DSM 5:

Dementia = Major Neurocognitive Disorder

Criteria –

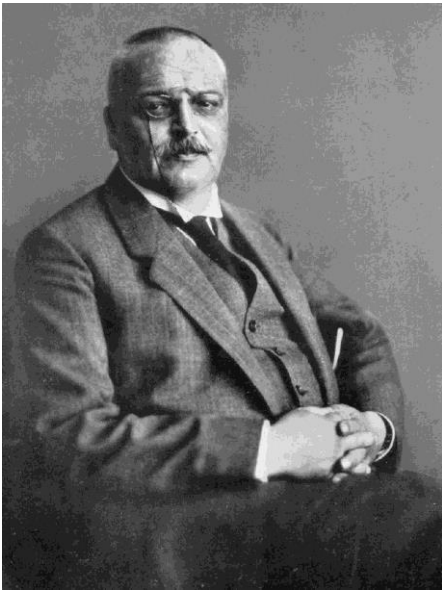
One or more acquired significant impairments (independence lost) in cognitive domains such as:

- Memory (amnesia)
- Language (aphasia)
- Execution of purposeful movement (apraxia)
- Recognition/familiarity (agnosia)
- Visuospatial function (topographical disorientation)
- Self control/management (executive functions impairment)
- Other examples:
 - Mathematics (dyscalculia)
 - Emotional expression/comprehension (dysprosody)
 - Writing (agraphia)

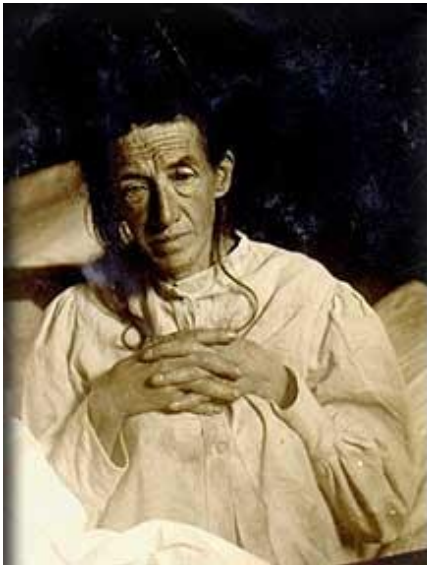
Demência

- Indivíduo
 - Deficiência
 - Dependência
- Família
 - Dependência de terceiros
 - Perda de produtividade
 - Alta chance dos familiares em desenvolver doenças psiquiátricas
- Sociedade

Doença de Alzheimer



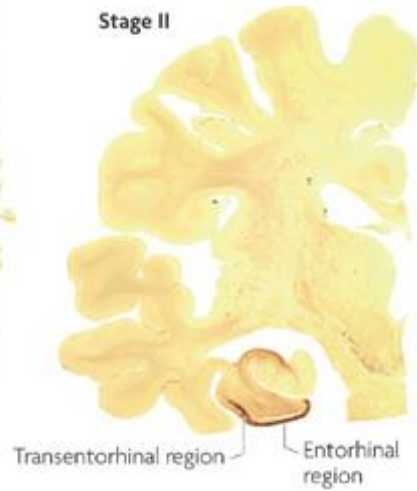
Alois Alzheimer 1864 - 1915



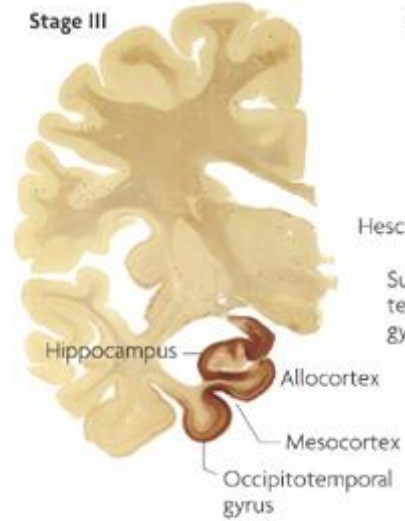
Stage I



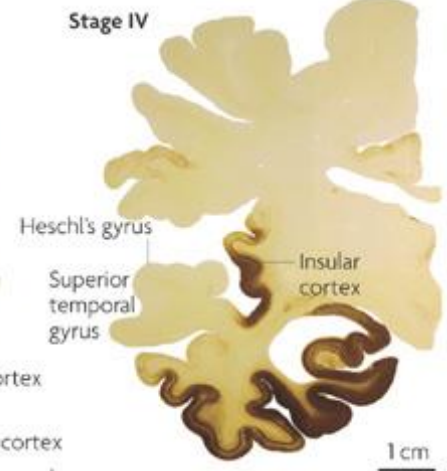
Stage II



Stage III



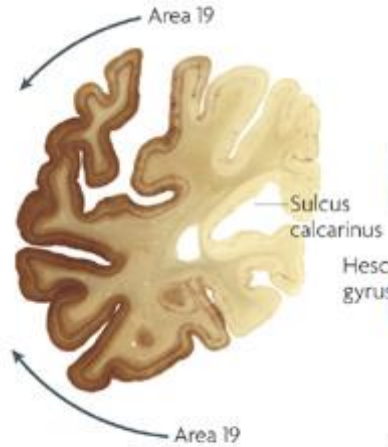
Stage IV



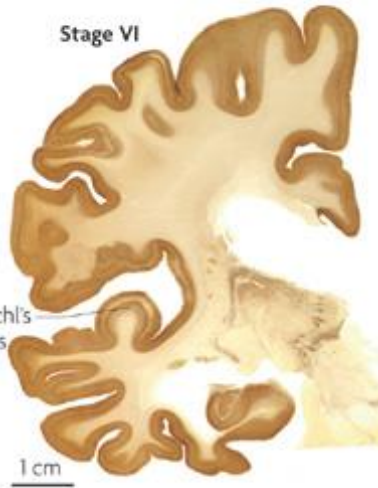
Stage V



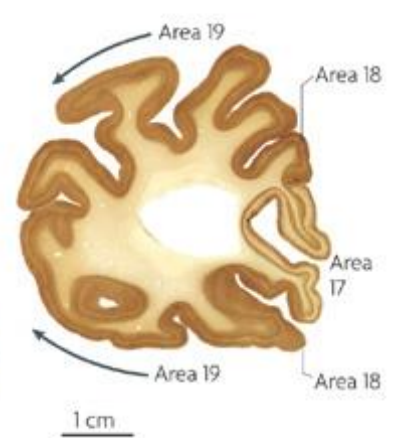
Stage V



Stage VI



Stage VI



Doença de Alzheimer

- 3 grupos de sintomas:
 - Disfunção cognitiva
 - Distúrbios psiquiátricos e comportamentais
 - Dificuldade em realizar as atividades da vida diária

Doença de Alzheimer

- Esporádica na maioria das vezes

PRINCIPAL FATOR DE RISCO: IDADE

- 5% dos casos: herança autossômica dominante
 - Genes associados:
 - Gene da proteína precursora do amilóide – cromossomo 21
 - Pré-senilina 1 - cromossomo 14
 - Pré-senilina 2 – cromossomo 1

Doença de Alzheimer

- Tratamento
 - Medidas ambientais e educativas
 - Treinamento de cuidadores
 - Tratamento das comorbidades clínicas
 - Tratamento dos sintomas psiquiátricos
 - Tratamento específico:
 - Inibidores da acetilcolinesterase – todas as fases da doença
 - Memantina – fases moderada e grave

The global impact of dementia

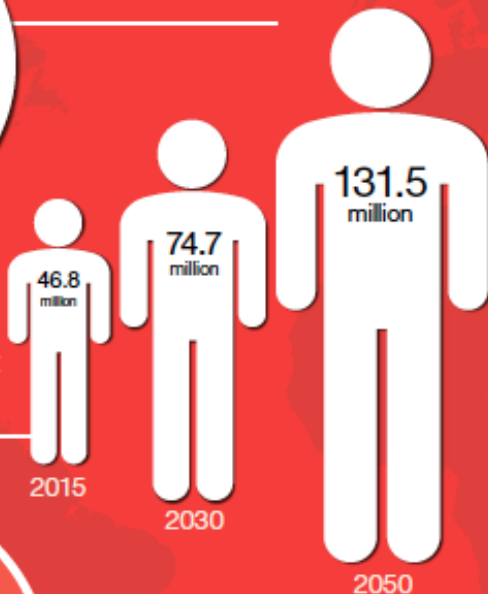


Around the world, there will be 9.9 million new cases of dementia in 2015,

one every 3 seconds

46.8 million people worldwide are living with dementia in 2015.

This number will almost double every 20 years.



Much of the increase will take place in low and middle income countries (LMICs): in 2015, 58% of all people with dementia live in LMICs, rising to 63% in 2030 and 68% in 2050.

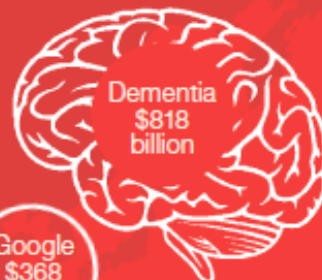
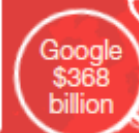


The total estimated worldwide cost of dementia in 2015 is US\$ 818 billion. By 2018, dementia will become a trillion dollar disease, rising to **US\$ 2 trillion by 2030**

If global dementia care were a country, it would be the

18th largest economy

in the world exceeding the market values of companies such as Apple and Google



(source: Forbes 2015 ranking).



This map shows the estimated number of people living with dementia in each world region in 2015.

We must now involve more countries and regions in the global action on dementia.

Importância epidemiológica

- Brasil: cerca de 30 milhões de pessoas com mais de 60 anos
 - População idosa com crescimento acelerado
 - Expectativa de vida em 2012: 74,6 anos
 - Homens: 71 anos
 - Mulheres: 78,3 anos
- 2050: 22% da população mundial será idosa (cerca de 2 bilhões)
 - 66,5 milhões de brasileiros idosos

Importância epidemiológica

- 2017: cerca de 50 milhões de pessoas com demência no mundo
- 2030: 75 milhões com demência
- 2050: 132 milhões com demência

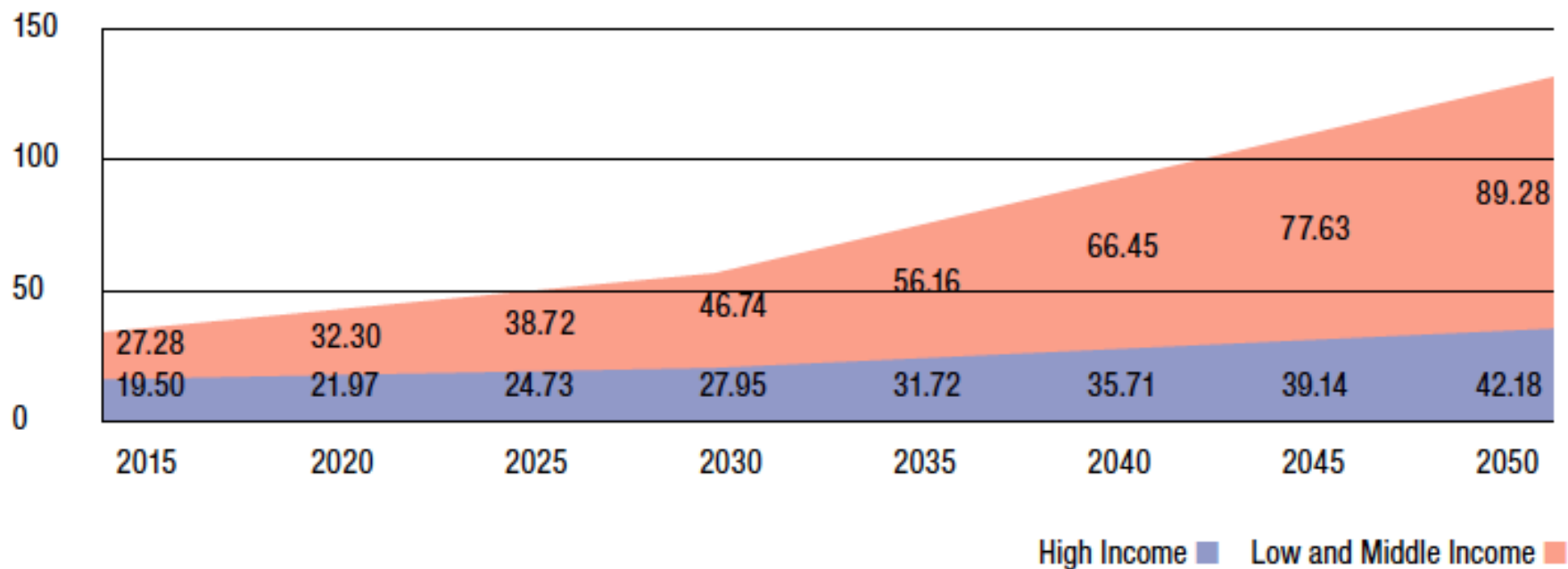
Importância epidemiológica

Prevalência de demência em função da idade

Faixa etária	Demência (%)
65 – 69	1,6
70 – 74	3,2
75 – 79	7,9
80 – 84	15,1
≥ 85	38,9

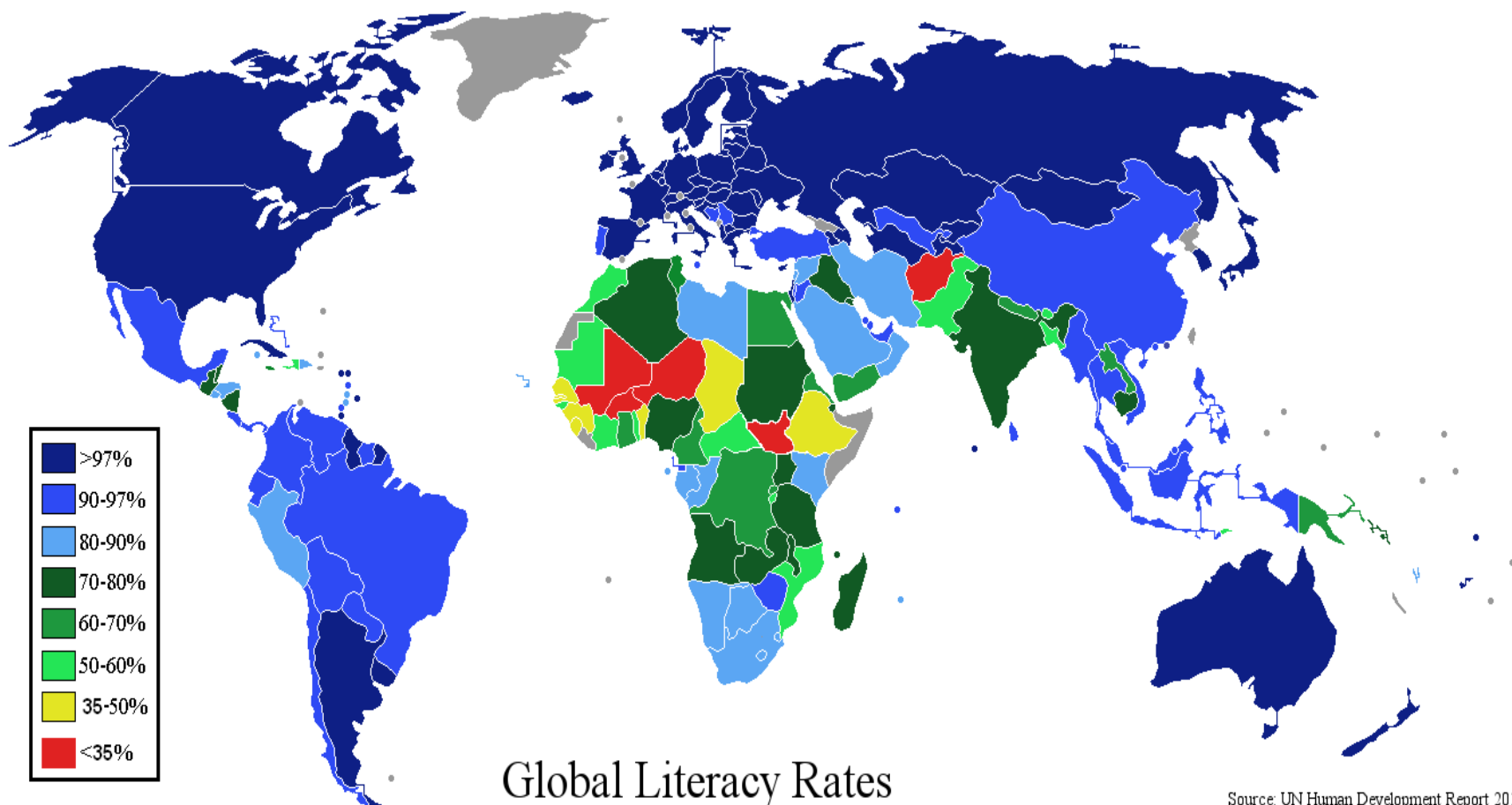
Prevalência ≥ 65 anos = 7,13% (5,94-8,49)

Figure 2.4
The growth in numbers of people with dementia (millions) in high income (HIC) and low and middle income countries (LMIC)



Prevalência de demência em analfabetos e alfabetizados em estudos brasileiros

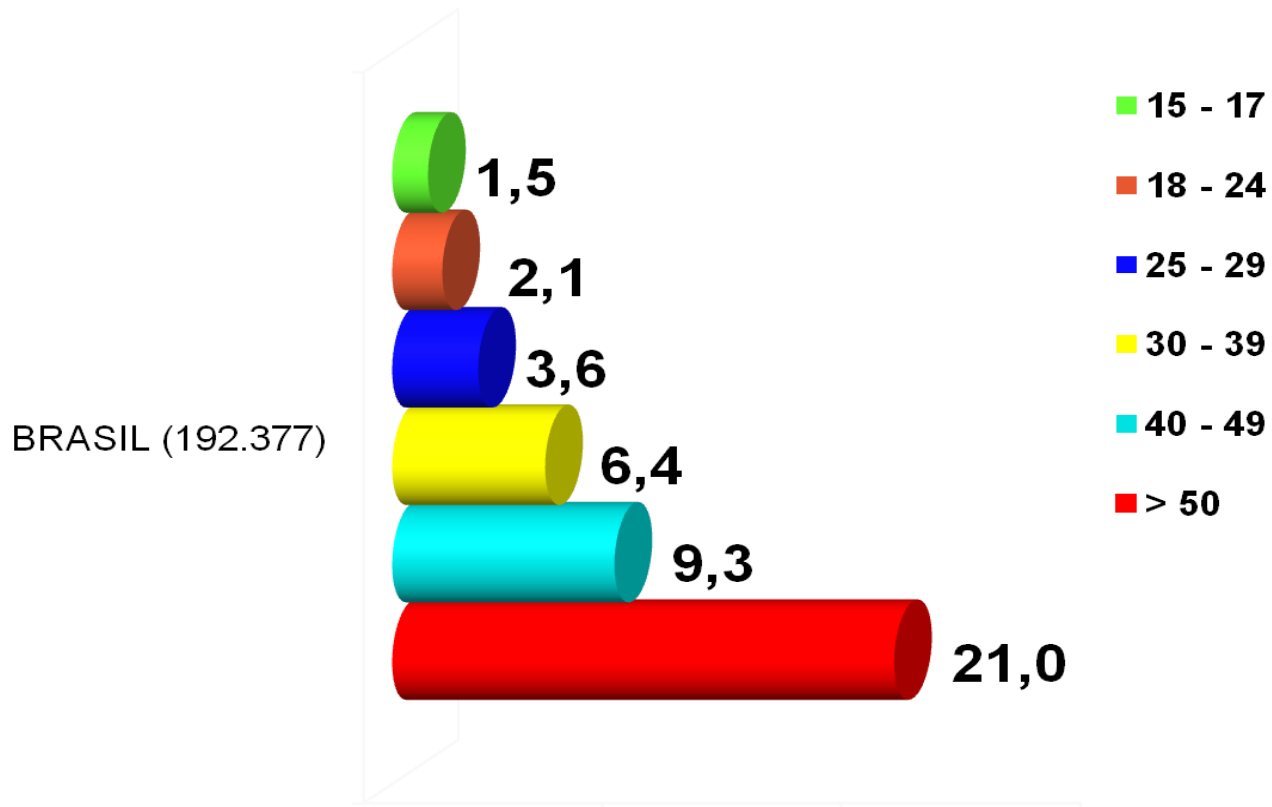
	Analfabetos			Alfabetizados			
Cidade	Dem. N	Total	Prevalência %; (95% CI)	Dem. N	Total	Prevalência %; (95% CI)	p
Catanduva	68	567	11.99 (9.41-14.93)	49	1089	4.50 (3.36-5.92)	<0.0001
São Paulo	40	192	20.83 (15.35-27.22)	56	915	6.12 (4.66-7.86)	<0.0001
Caeté	56	175	32.00 (25.08-38.91)	118	464	25.43 (21.46-29.39)	0.616



- 793,1 milhões de analfabetos no mundo

Unesco, 2011

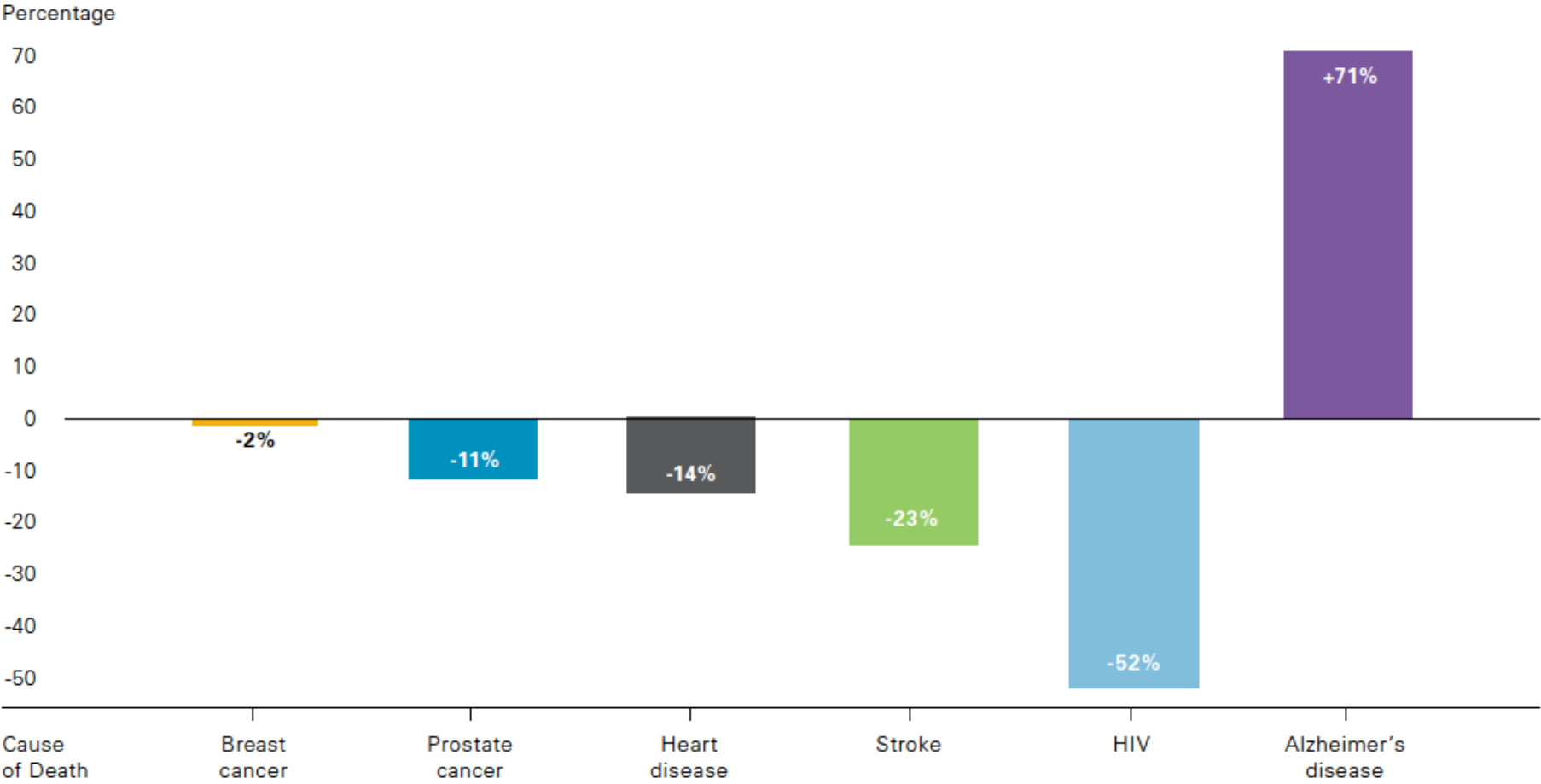
Analfabetismo no Brasil



Subtipos de demência no Brasil

- Herrera et al. Catanduva, SP, 2002
 - N = 118
 - AD: 55,1%
 - VaD: 9,3%
 - AD + VaD: 14,4%
- Bottino et al., São Paulo, SP, 2008
 - N = 107
 - AD: 59,8%
 - VaD: 15,9%
 - AD + VaD: 8,4%

Percentage Changes in Selected Causes of Death (All Ages) Between 2000 and 2013

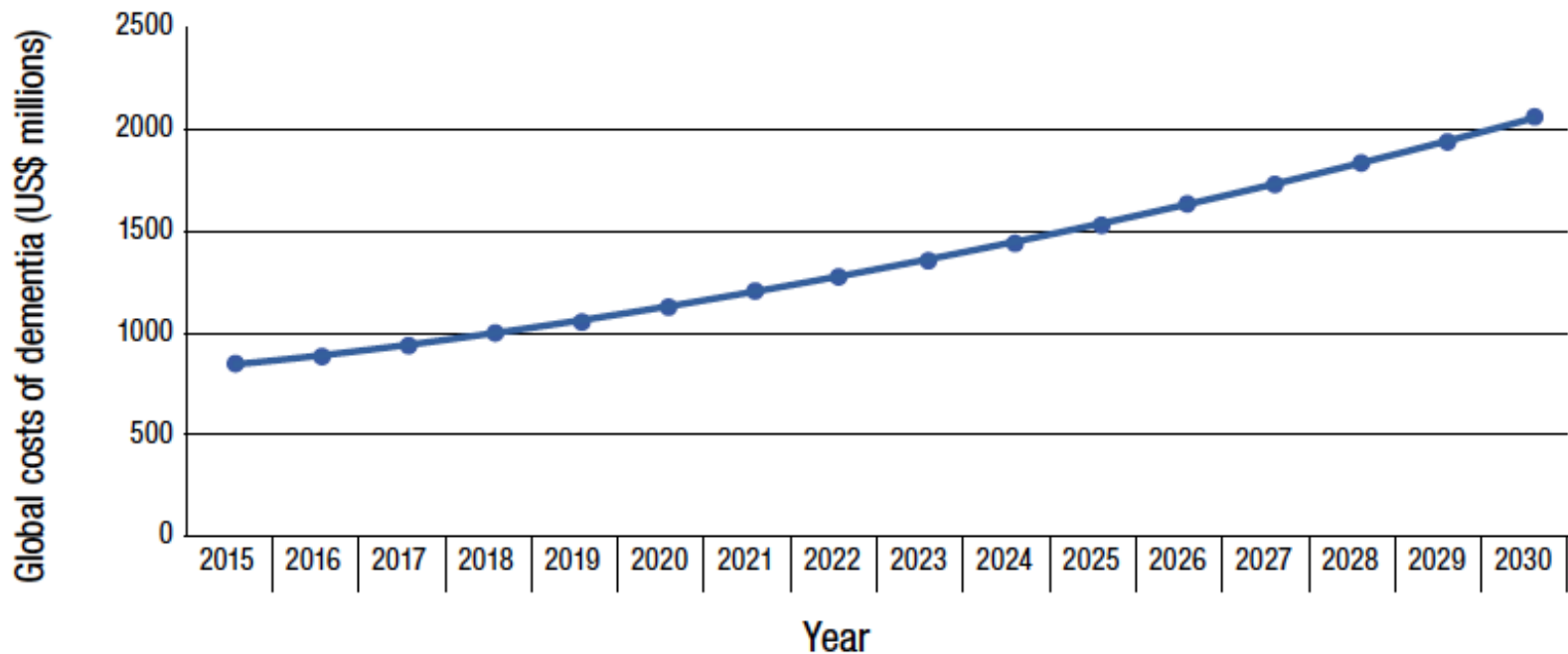


Created from data from the National Center for Health Statistics.¹⁶⁹

Custo da demência

- 2015: custo mundial estimado em US\$ 818 bilhões (1,1% PIB global)

Figure 6.1
Forecasted global costs of dementia 2015-2030



Custo da demência

- 3 componentes:
 - Custos diretos – despesas médicas (visitas, exames, medicamentos)
 - Custos sociais – pagamento de cuidados formais por profissionais de saúde ou institucionalização
 - Custos indiretos – associados a cuidadores informais que não são remunerados, mas abrem mão de seus empregos e sofrem perda de produtividade

Custo da demência

- Em países em desenvolvimento: predomínio dos custos indiretos
 - Custos do atendimento comunitário praticamente inexistente

Table 6.6

Sub-category costs of dementia in 2010 and 2015 (billion US\$, and percent of total costs), by country income level based on current World Bank country classification

	Direct medical costs		Direct social sector costs		Informal care costs	
	US\$ (billions)	Per cent	US\$ (billions)	Per cent	US\$ (billions)	Per cent
2010 (WAR 2009)						
Low income	0.1	22.3%	0.1	11.5%	0.3	66.2%
Lower middle income	2.9	29.4%	1.6	16.4%	5.3	54.2%
Upper middle income	12.6	28.1%	8.3	18.6%	23.9	53.3%
High income	80.8	14.7%	245.7	44.8%	222.4	40.5%
Total	96.4	16.0%	255.7	42.3%	251.9	41.7%
2015 (WAR 2015)						
Low income	0.2	20.4%	0.1	10.4%	0.8	69.2%
Lower middle income	3.7	23.9%	2.0	13.2%	9.6	62.9%
Upper middle income	19.3	22.4%	17.7	20.5%	49.3	57.1%
High income	136.0	19.0%	308.1	43.1%	271.1	37.9%
Total	159.2	19.5%	327.9	40.1%	330.8	40.4%

Table 4. Indirect costs of caregivers sample (n=93) according to severity of dementia.

	Mild	Moderate	Severe	ANOVA p-value	
Total hours/day with ADL/IADL and supervision – Mean (±SD)	10.6 (±8.5)	15.3 (±7.4)	17.9 (±7.5)	0.004*	
Total hours/week with ADL/IADL and supervision – Mean (±SD)	73 (±60.3)	106 (±50.6)	125.5 (±52.5)	0.003*	
Total hours/month with ADL/IADL and supervision – Mean (±SD)	323.3 (±260.6)	453.8 (±216.9)	538 (±224.9)	0.006*	
Total days/month with ADL/IADL and supervision – Mean (±SD)	24.7 (±10.4)	29.3 (±3.7)	28.5 (±5.7)	0.028**	
Total costs per month (US\$)	309.5 (±291.9)	505.2 (±321.7)	567.6 (±322.5)	0.005*	
Total projected costs per year (US\$)	3714.0 (±3,503)	6062.4 (±3,860)	6811.2 (±3,873)	0.016*	
Direct social care costs/month in US\$ Mean (±SD)	Medication	67.5 (±70.6)	79.8 (±81.7)	125 (±145.5)	0.115
	Doctor visits/health insurance	59.3 (±107.9)	85.9 (±131)	108.4 (±126)	0.357
	Transportation	18.4 (±28.5)	46.4 (±55.1)	59.3 (±110)	0.034
	Food	287.2 (±167.7)	288.3 (±138)	305 (±146)	0.921
	Diapers	0.00 (0.00)	4.7 (±22)	110.2 (±95.5)	<0.001**
	Dressing	19.2 (±38.1)	28.7 (±43)	25.3 (±26.3)	0.549
	Other	15 (±27.7)	17.8 (±37.6)	23.6 (±37.3)	0.714
	Formal caregiver	8.5 (±38.6)	57.7 (±131)	215.2 (±346.6)	0.171
Total Direct social care + informal care + loss or reduction of productivity/month (US\$)	1122.4	1508.9	1644.7		
Total projected indirect costs/year (US\$)	13468.8	18106.8	19736.4		

ADL: Activities of daily living; IADL: Instrumental Activities of Daily Living; *Comparisons were performed by the post hoc Bonferroni test and showed statistical significance at levels 1≠2 (mild ≠ moderate) 1≠3 (mild ≠ severe) and 2≠3 (moderate ≠ severe) of the FAST scale; US\$: American dollars.

Custo da demência

- Argentina: custo anual
 - US\$3420,40 – DA leve
 - US\$9657,60 – DA grave
 - US\$3189,20 – paciente ambulatorial
 - US\$14,447,68 - institucionalizado

Custos da doença de Alzheimer e de outras formas de demência

Custos directos	57,3 Biliões de Euros
Cuidados informais	72,7 Biliões de Euros
Total	130,00 Biliões de Euros

Custo Anual com doença de Alzheimer ou outras formas de demência POR PESSOA

Custos directos	9,272 Euros
Cuidados informais	11,773 Euros
Total	21,045 Euros

Custo da demência

- Custo maior nas camadas sócio-econômicas mais baixas (Hojman et al. 2017)
- Impacto alto nas famílias: financeiro, social e emocional
 - 75% cuidadores: > 55,5 anos
 - Mulheres 81,5% (esposas ou filhas)
 - 83,7%: sensação de deterioração da sua própria saúde
 - Altos índices de depressão: 44% em estudo da América Latina
 - Altos índices de exaustão emocional: 42,4%
- América Latina: predomínio de custos com cuidados informais

Déficits do sistema de saúde

- Abrangência diagnóstica baixa
 - Países desenvolvidos = 40-50%
 - Países em desenvolvimento = 10-15%
- Falta de cuidado especializado em demência
- Falta de acesso a tratamentos, mesmo aqueles com evidência científica robusta
- Ausência de programas educativos formadores de cuidadores e para orientação dos profissionais de saúde e familiares
- Ausência de tratamento que altere a evolução da doença

Prevenção

Fatores de risco para doença de Alzheimer

- Não modificáveis
 - Idade
 - Sexo feminino
 - Fatores de risco genéticos
- Modificáveis
 - Nutricionais
 - Médicos (condições médicas e medicações)
 - Sociais ou comportamentais

Fatores de risco modificáveis

- Escolaridade
 - Atraso na manifestação clínica
 - Aumento da reserva cognitiva

Fatores de risco modificáveis

- Fatores vasculares
 - Alterações metabólicas: *diabetes mellitus*, resistência à insulina, obesidade
 - Hipertensão arterial sistêmica
 - Tabagismo
- Depressão

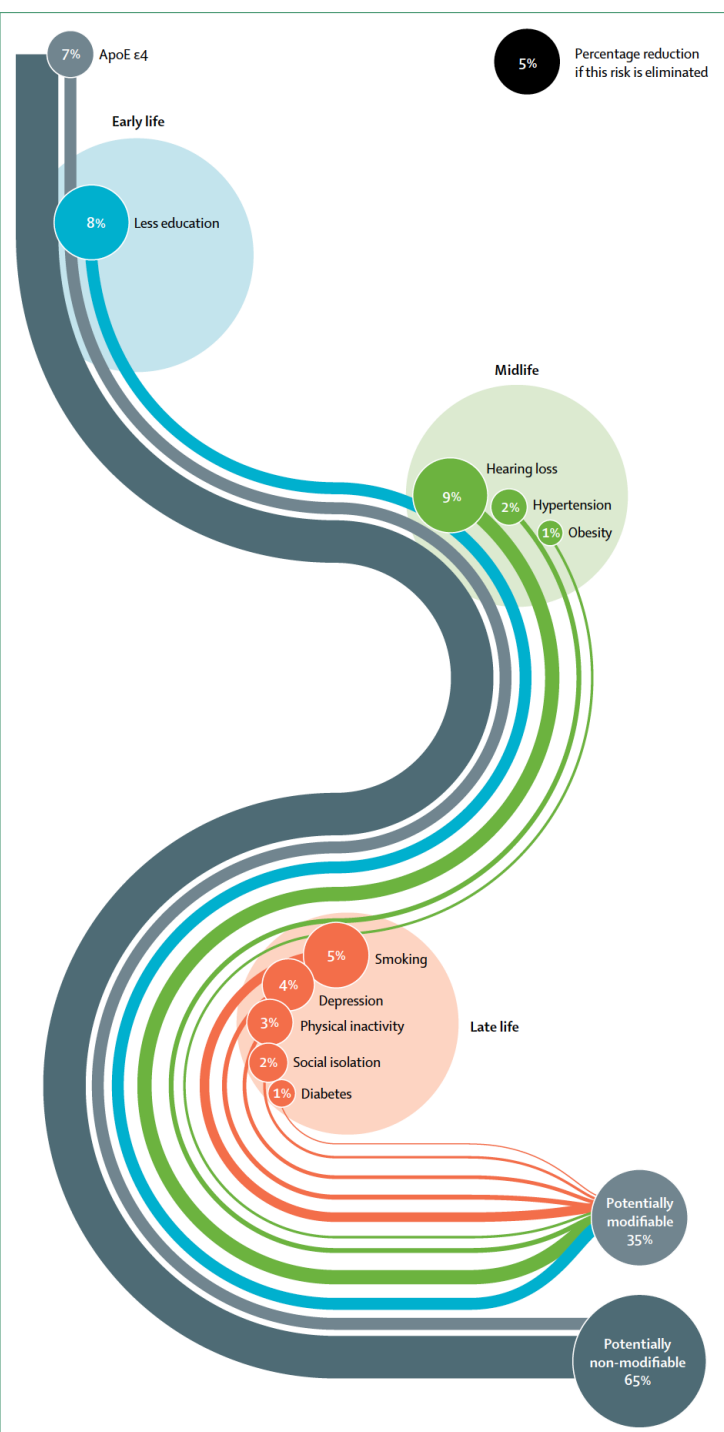
Importância da prevenção

- Atraso em 1 ano no início da DA:
 - Estimativa de possível prevenção de mais de 9 milhões de casos no mundo em 2050

	Relative risk for dementia (95% CI)	Prevalence	Communality	PAF	Weighted PAF*
Early life (age <18 years)					
Less education (none or primary school only)	1.6 (1.26–2.01)	40.0%	64.6%	19.1%	7.5%
Midlife (age 45–65 years)					
Hypertension	1.6 (1.16–2.24)	8.9%	57.3%	5.1%	2.0%
Obesity	1.6 (1.34–1.92)	3.4%	60.4%	2.0%	0.8%
Hearing loss	1.9 (1.38–2.73)	31.7%	46.1%	23.0%	9.1%
Later life (age >65 years)					
Smoking	1.6 (1.15–2.20)	27.4%	51.1%	13.9%	5.5%
Depression	1.9 (1.55–2.33)	13.2%	58.6%	10.1%	4.0%
Physical inactivity	1.4 (1.16–1.67)	17.7%	26.6%	6.5%	2.6%
Social isolation	1.6 (1.32–1.85)	11.0%	45.9%	5.9%	2.3%
Diabetes	1.5 (1.33–1.79)	6.4%	70.3%	3.2%	1.2%

Data are relative risk (95% CI) or %. Total weighted PAF adjusted for communality=35.0%. PAF=population attributable fraction. *Weighted PAF is the relative contribution of each risk factor to the overall PAF when adjusted for communality.

Table 1: Potentially modifiable risk factors for dementia



Livingston, 2017

Global target

Dementia as a public health priority	75% of countries will have developed or updated national policies, strategies, plans, or frameworks for dementia, either stand-alone or integrated into other policies/plans, by 2025
Dementia awareness and friendliness	100% of countries will have at least one functioning public awareness campaign on dementia to foster a dementia-inclusive society by 2025 50% of countries will have at least one dementia-friendly initiative to foster a dementia-inclusive society by 2025
Dementia risk reduction	The relevant global targets defined in, and in keeping with, the global action plan for prevention and control of non-communicable diseases 2013–20 and any future revisions are achieved
Dementia diagnosis, treatment, care, and support	In at least 50% of countries, as a minimum, 50% of the estimated number of people with dementia are diagnosed by 2025
Support for dementia carers	75% of countries provide support and training programmes for carers and families of people with dementia by 2025
Information systems for dementia	50% of countries routinely collect a core set of dementia indicators through their national health and social information systems on which they report every 2 years by 2025
Dementia research and innovation	The output of global research on dementia doubles between 2017 and 2025

Table: Action areas in the WHO Global Action Plan on the Public Health Response to Dementia (2017–2025)¹⁰

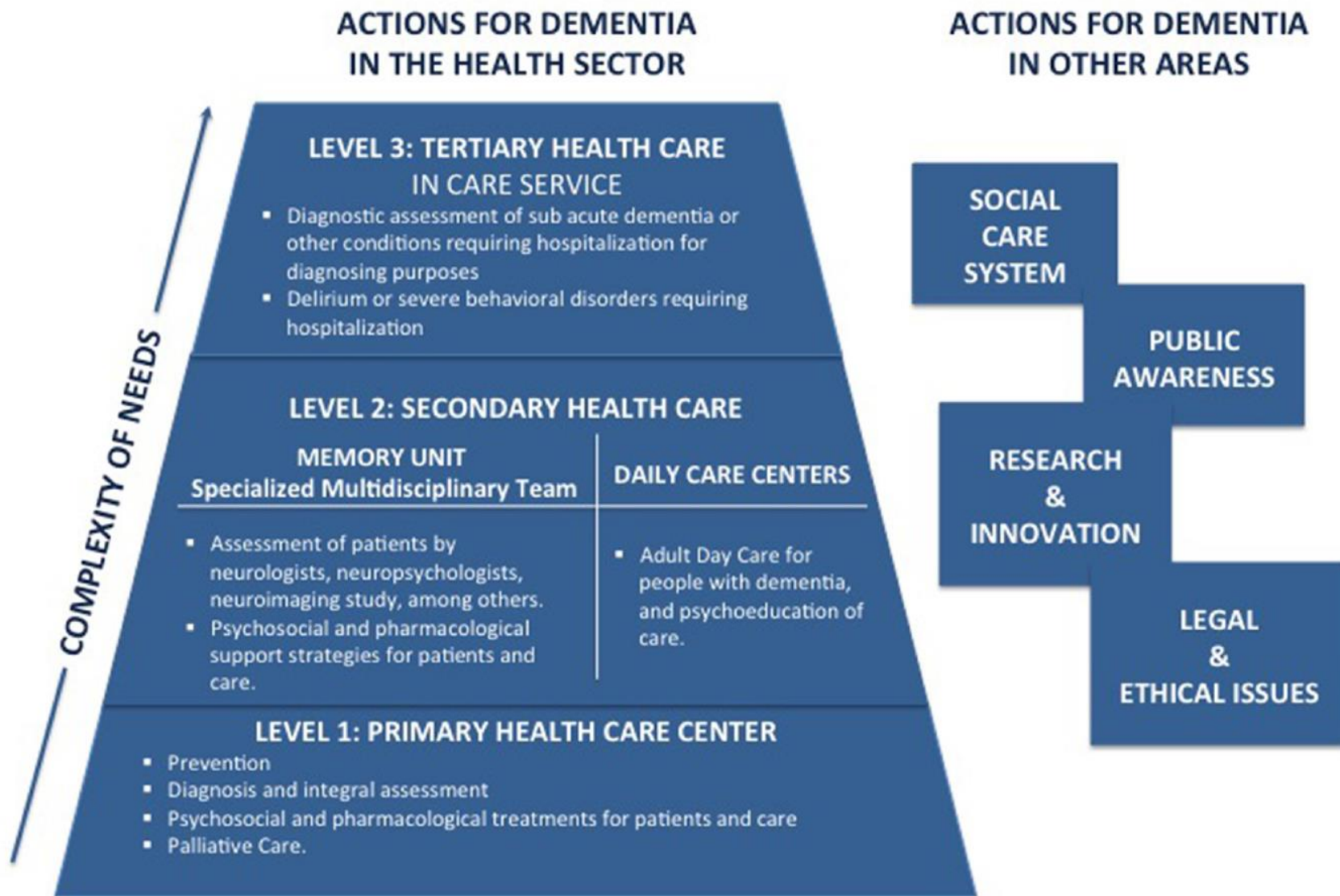


FIGURE 1 | Biopsychosocial model of dementia care in the Chilean's National Dementia Plan (adapted from Ministerio de Salud, 2015) (prepared by AS).

Obrigada

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