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SOCIAL AND HEALTH COSTS OF MULTIMORBIDITY AND POLYPATHOLOGY

September 2013

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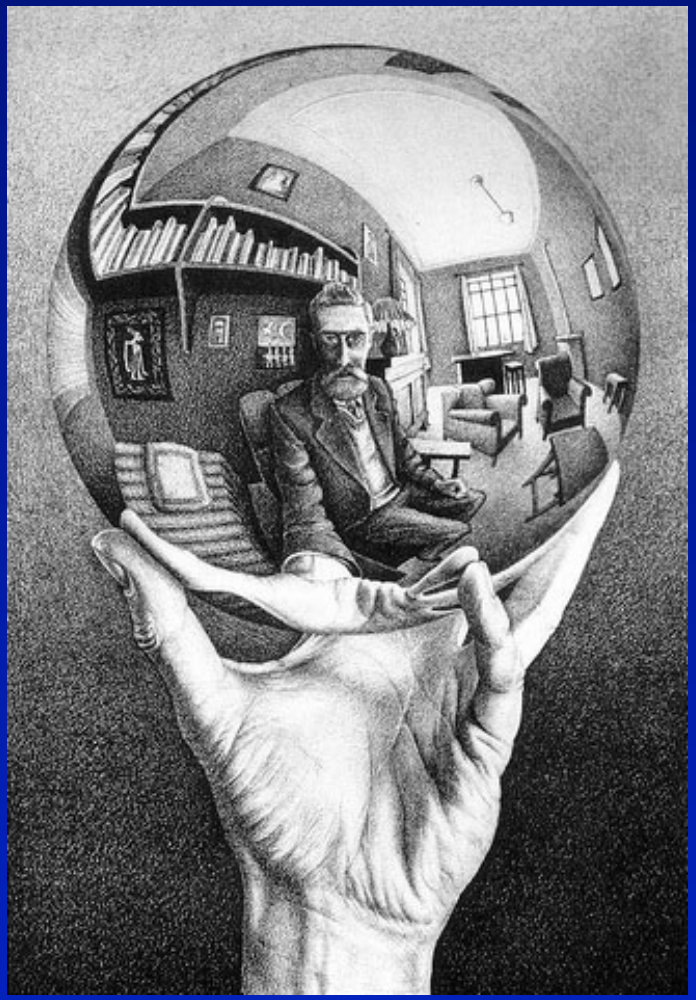
Conflict of interest

- Member of Andalusian and Spanish Soc. Of Internal Medicine, and Spanish Soc. Of Infectious Diseases.
- Perception in past 3 years of fees as teacher in training actions for the Andalusian Health Service, Univ. Huelva, and Univ. Sevilla (Associate Prof of Geriatrics).
- No perception in past 3 years of fees from pharmaceutical industry organizations.
- No shares nor partnerships in companies in the health sector, pharmaceutical or biotechnological industries.

"We have to look more to the man suffering the disease, than to the disease in the man"

Gregorio Marañón (Physician and thinker; 1887-1960)



SOCIAL AND HEALTH COSTS OF MULTIMORBIDITY

- THE EPIDEMIOLOGICAL FACTS: ¿costs or tasks?
- SOCIAL IMPACT AND TASKS
- HEALTH IMPACT AND TASKS
- MESSAGES TO TAKE HOME

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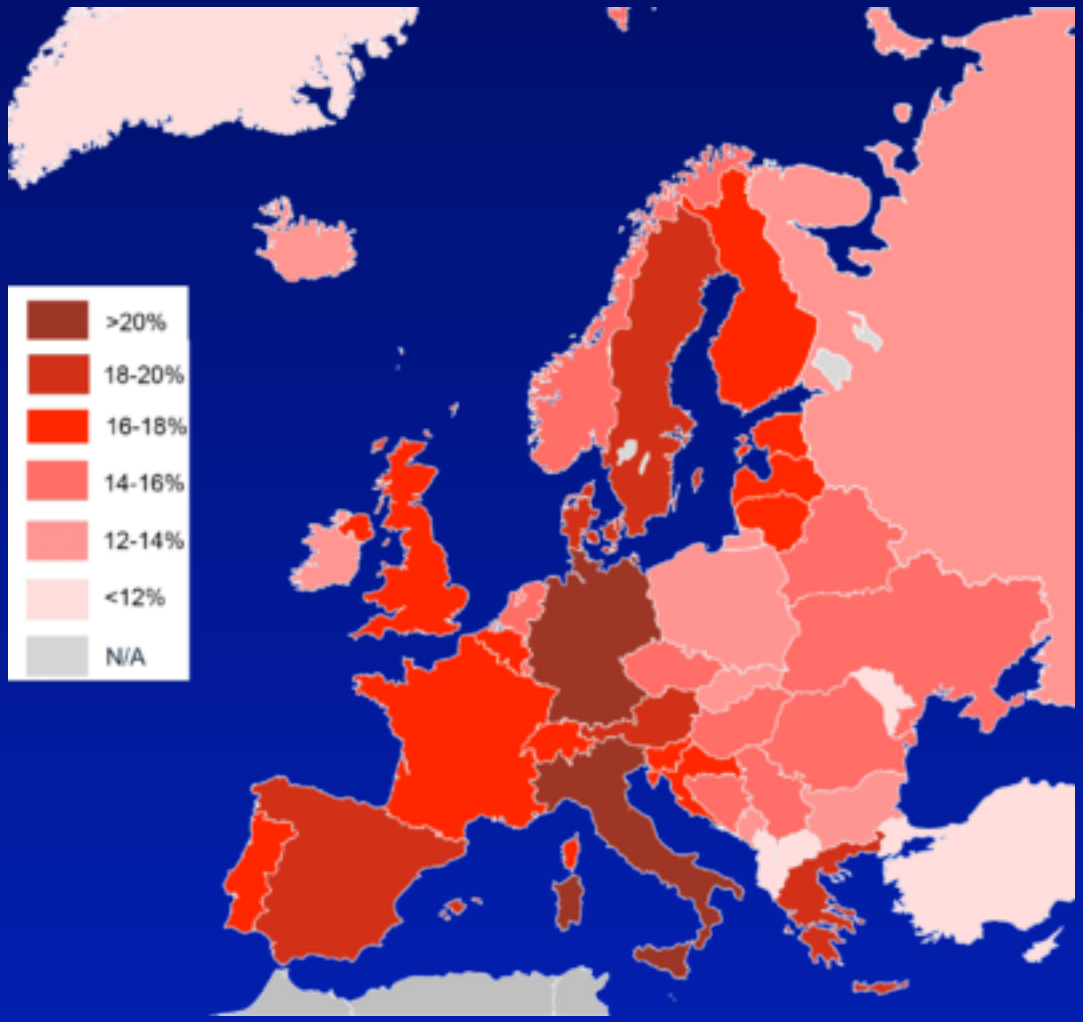
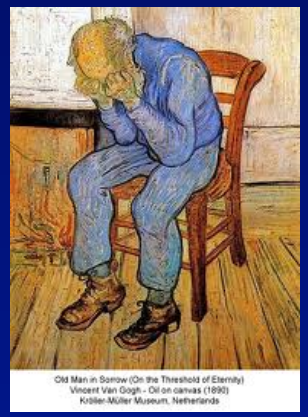
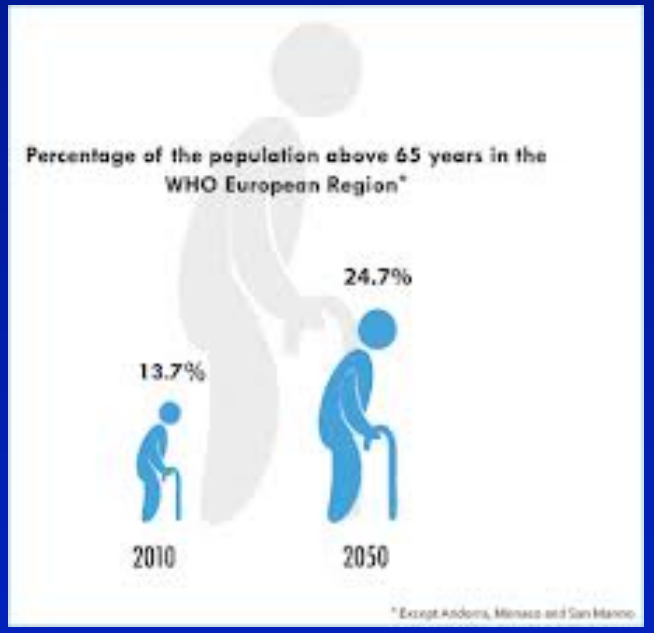
EMERGENCE OF POLYPATHOLOGY: AGING

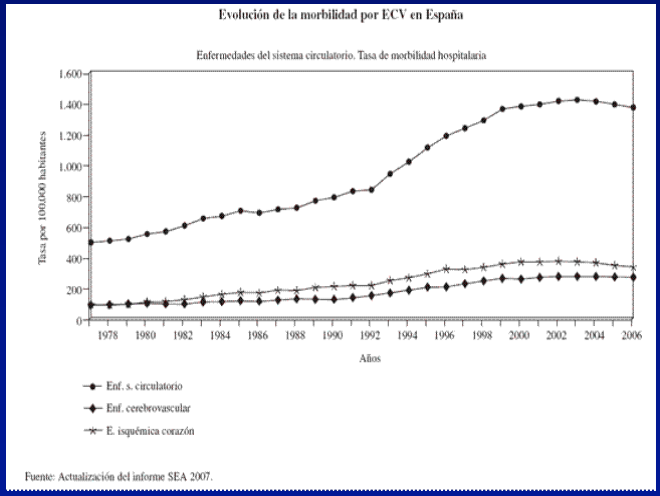


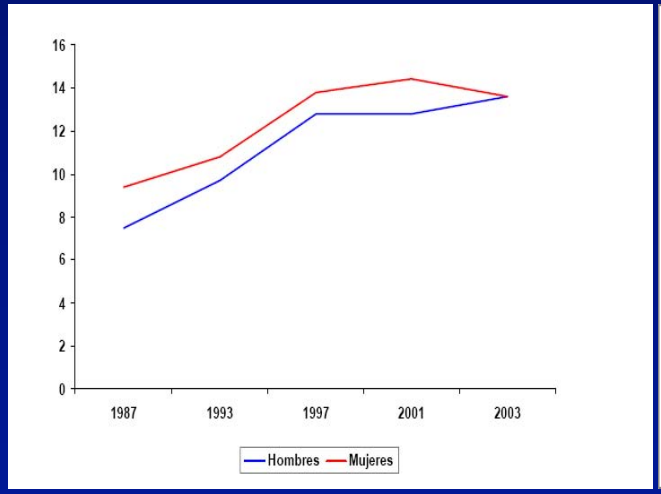


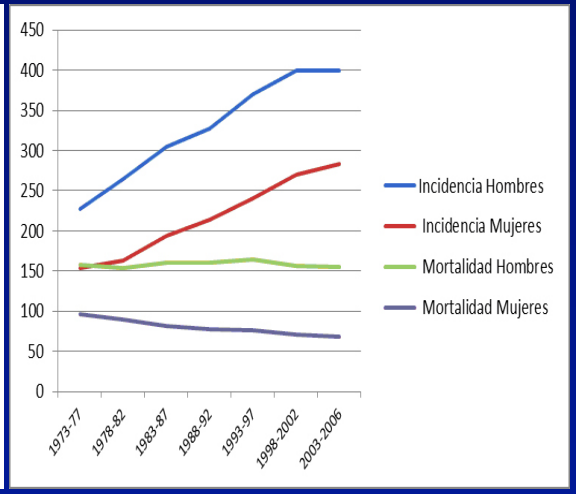


EMERGENCE OF POLYPATHOLOGY: SOCIAL AND HEALTH-CARE ACHIEVEMENTS

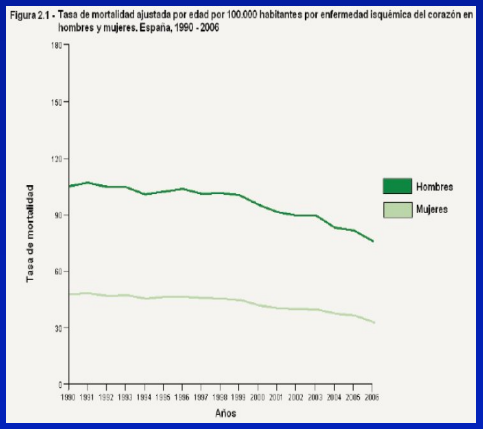
PREVALENCE OF MOST FREQUENT CARDIOVASCULAR CONDITIONS AND CANCER

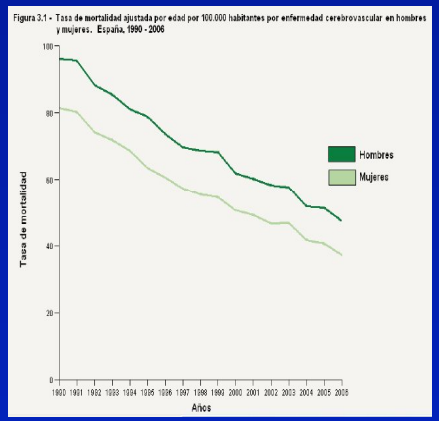


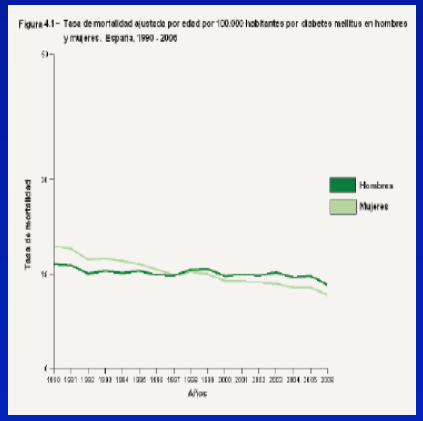


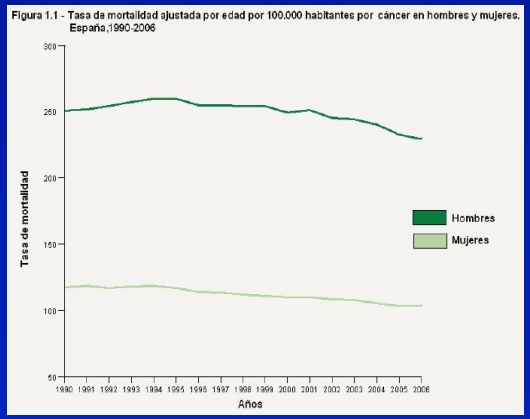


HIGHER PREVALENCE + LOWER MORTALITY = ↑ ↑ PP POPULATIONS









MORTALITY OF MOST FREQUENT CARDIOVASCULAR CONDITIONS AND CANCER

¿The epidemiological facts: A EMERGENT POPULATION?

- YES, A EMERGENT POPULATION
- HIGHLY COMPLEX, VULNERABLE
- WITH POOR HEALTH RESULTS
- WITH SPECIFIC REQUIREMENTS IN HEALTH-CARE PROVIDING

THIS SOCIAL AND EPIDEMIOLOGICAL CHANGE HAS A LOT OF COLLECTIVE SUCCESS

IT IS NOT: A THREAT, A CURSE, NOR A PUNISHMENT OR A PEST...
IT IS: THE RESULT OF THE GENERATIONS' EFFORTS...

BUT IT IS A REALITY TO WHICH WE HAVE NECESARILLY TO ADAPT. IT IS A TASK OF ALL US

SOCIAL AND HEALTH COSTS OF MULTIMORBIDITY

- THE EPIDEMIOLOGICAL FACTS: ¿costs or tasks?
- SOCIAL IMPACT AND TASKS: ¿miths?
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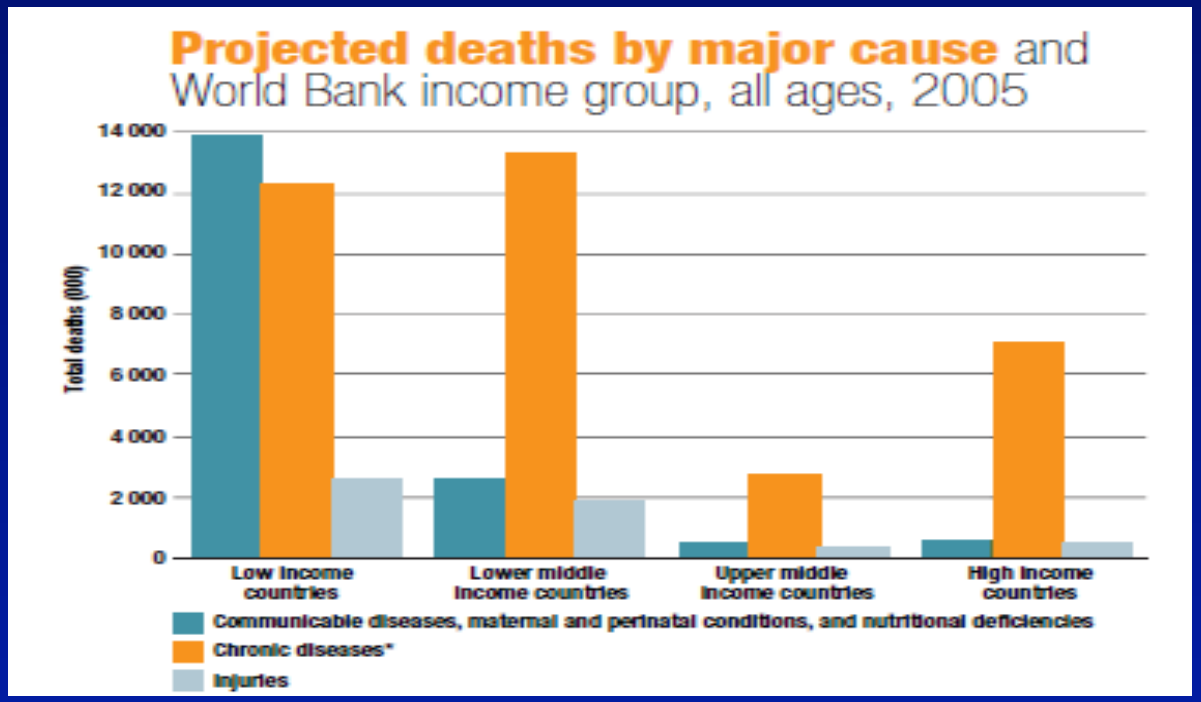
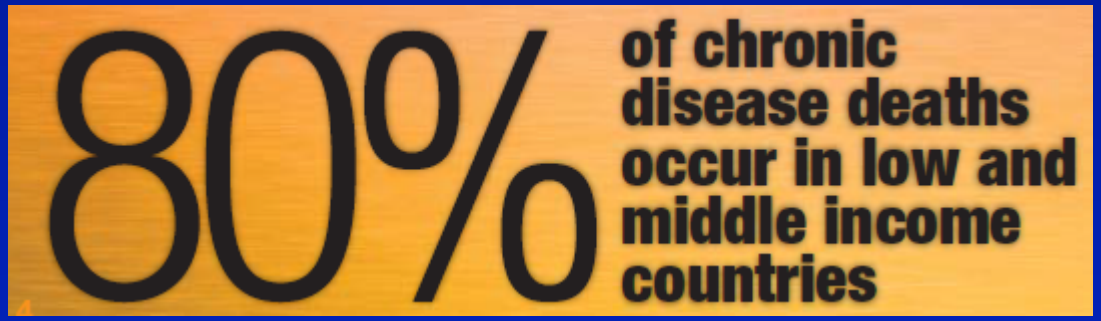
SOCIAL MITHS OF CHRONICITY AND POLYPATHOLOGY

"10 common misunderstandings". Preventing chronic diseases. A vital investment. WHO 2005

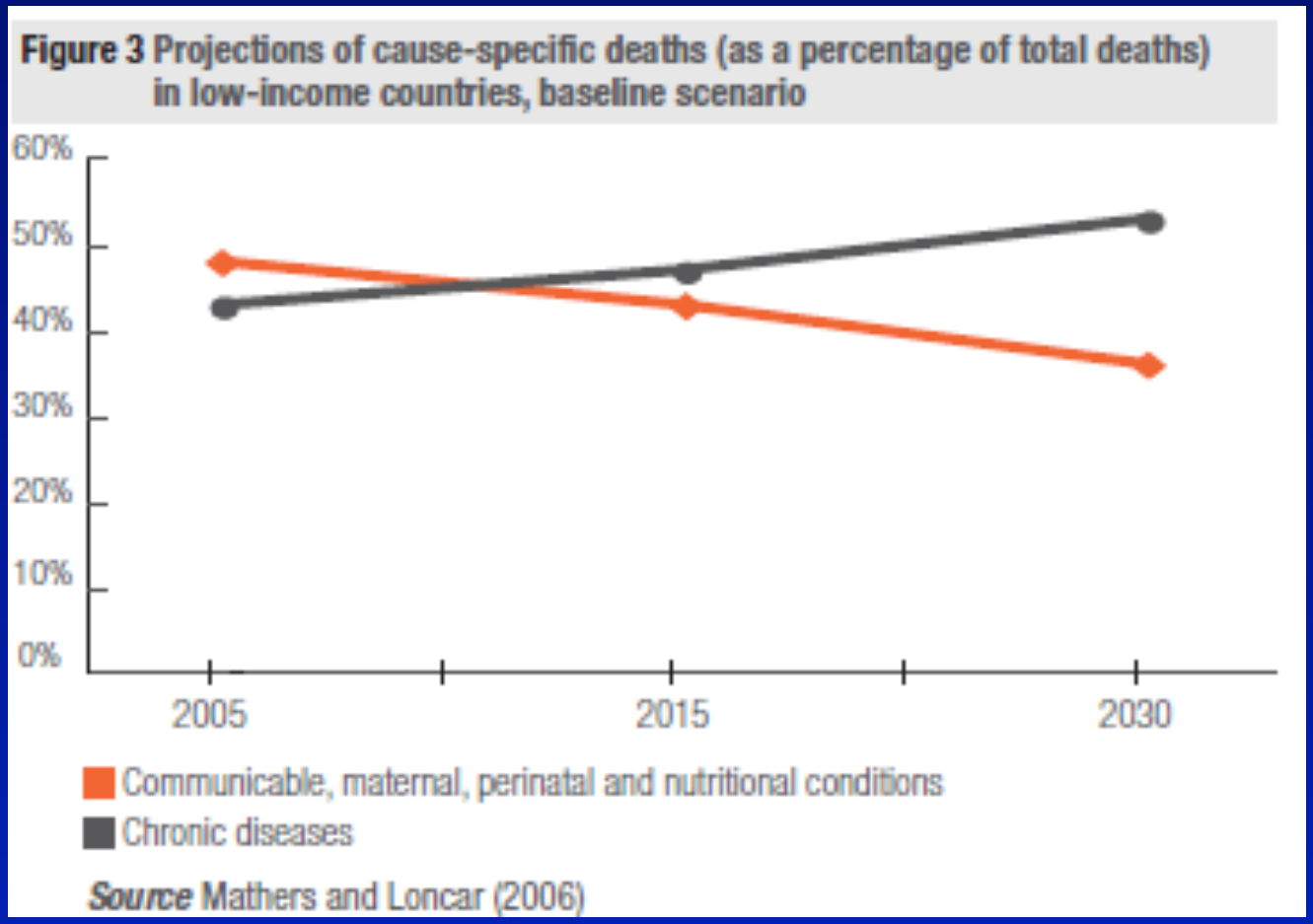
SOCIAL MITHS OF CHRONICITY AND POLYPATHOLOGY





Preventing chronic diseases. A vital investment. WHO 2005

SOCIAL MITHS OF CHRONICITY AND POLYPATHOLOGY



Chronic diseases. An economic perspective. The Oxford Health Alliance 2006

THE CORE: IMPACT OF CHRONICITY IN PATIENT'S LIFE

- Chronic and disabling somatic symptoms
  - Pain, dyspnea, anorexia, fatigue
- Psichological consequences

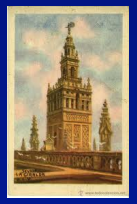
  - Functional decline
    - Instrumental
      - Dayly living

        - Productivity losses
        - Poor HRQoL

VULNERABILITY, DEPENDENCE

THE "PERI-CORE": MAIN CAREGIVER AND FAMILY

- Seville cohort of PP (unicentric, n=662, mean age 75y)*
- PROFUND cohort of PP (36 centers, n=1632, mean age 78y)$
- PALIAR cohort (41 centers, n=1847, mean age 78y)&



PROYECTO PROFUND

paliar.net

- Women in >80% of patients.
- Spouses and/or daughters (50%/50%)
- Mean age: 57-60 (SD=15): two populations.

*Moreno L, Bernabeu-Wittel, et al. Aten Primaria 2008;40:193-8 // $Bernabeu-Wittel, et al. Arch Gerontol Geriatr 2011;53:284-91 // &Moreno-Gaviño L, Bernabeu-Wittel, et al. Eur J Internal Med 2013; 24:72-3.

THE "PERI-CORE": MAIN CAREGIVER AND FAMILY

Table 1
Main features of patients, caregivers and social network support of the 1847 patients with advanced medical conditions included in 41 hospitals of Spain.

	Number (%)/mean ± standard deviation
Patients' features	
Age (years)	78.74 ± 10
Sex (male)	942 (51%)
Place of residence	
Home	1611 (87.2%)
Nursing care home	227 (12.3%)
Caregiver available	1605 (86.9%)
Caregiver needed[a]	1448 (78.4%)
Caregivers' features	
Age	56.1 ± 15
Sex (female)	1396 (87%)
Relationship with the patient	
Son/daughter	578 (36%)
Spouse	385 (24%)
Professional caregiver/other relatives	642 (40%)
Spending full time in caregiving	963 (60%)
Needing additional support	775 (68%)
Other relatives	400 (53%)
Professional caregivers	211 (28%)
Other (friends, neighbors...)	164 (19%)
Having received caregiver education programs	183 (11.4%)
Social network's features	
Support by law for disabled persons	408 (22.1%)
Spiritual support	194 (10.5%)
Supported by palliative care programs	150 (8.1%)
Psychological support	52 (2.8%)

[a] Needing a caregiver was defined as a Barthel index score lower than 60 and/or a number of errors in Pfeiffer scale higher than or equal to 3. Of them, 96% had a caregiver.

Moreno-Gaviño L, Bernabeu-Wittel, et al. Eur J Internal Med 2013; 24:72-3.

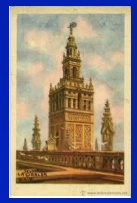
THE "PERI-CORE": OVERLOADED CAREGIVERS?

- Caregiver Strain Index (CSI) to main caregivers of 662 PP of Seville.

- 13 questions (5 domains: Employment, Financial, Physical, Social and Time): 7 or more points= significative strain/stress..

- CSI ≥7 in >41.5% of main caregivers.

- CSI ≥7 associated to this patients' features:
  - Urban areas vs rural
  - Age
  - Chronic neurological conditions /cognitive impairment.
  - Functional dependence in ADL
  - Clinical vulnerability (Σ healthcare needs in 3 m)



*Moreno L, Bernabeu-Wittel, et al. Aten Primaria 2008;40:193-8

THE "SUBTLE" IMPACT: FAMILY & SOCIETY

- Time in caring
- Stress in caring
- Training in caring
- Home adaptation---home moving
- Financial impact
- Social impact (relationships, social network…)

The social and familial impact

- DO NOT TRUST MITHS: IT IS A GLOBAL TASK
- MOST SOCIAL IMPACT FALL IN THE FAMILY
- MOST FAMILY IMPACT FALL IN WOMEN: DAUGHTERS AND SPOUSES
- IN ADDITION TO THE EVIDENT: A SIGNIFICATIVE “SUBTLE” SOCIOFAMILIAL IMPACT TO ASSESS

SOCIAL AND HEALTH COSTS OF MULTIMORBIDITY

- THE EPIDEMIOLOGICAL FACTS: ¿costs or tasks?
- SOCIAL IMPACT AND TASKS: ¿miths?
- HEALTH IMPACT AND TASKS: ¿expenditures or investments?
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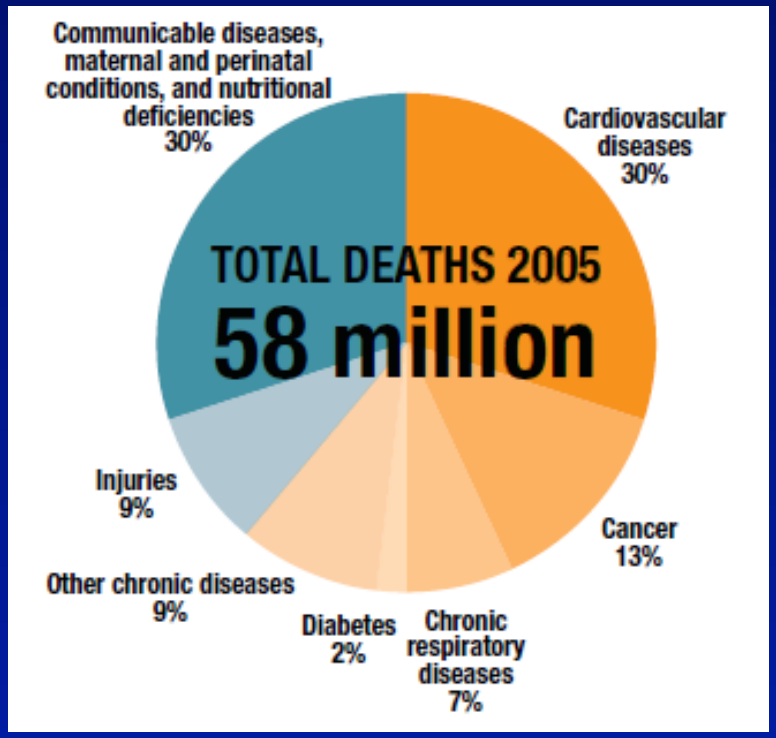
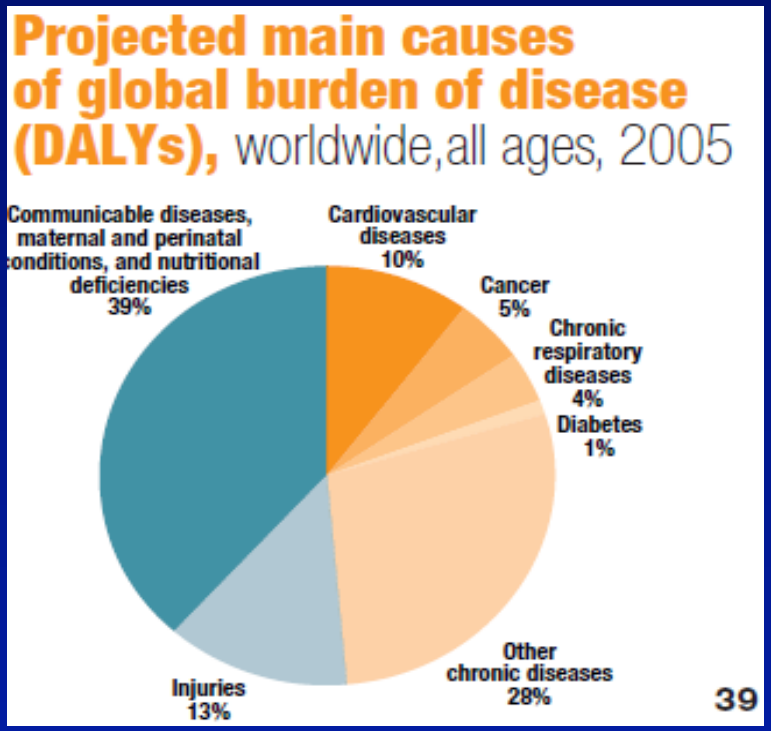
THE DEATHS, THE DISEASE BURDEN

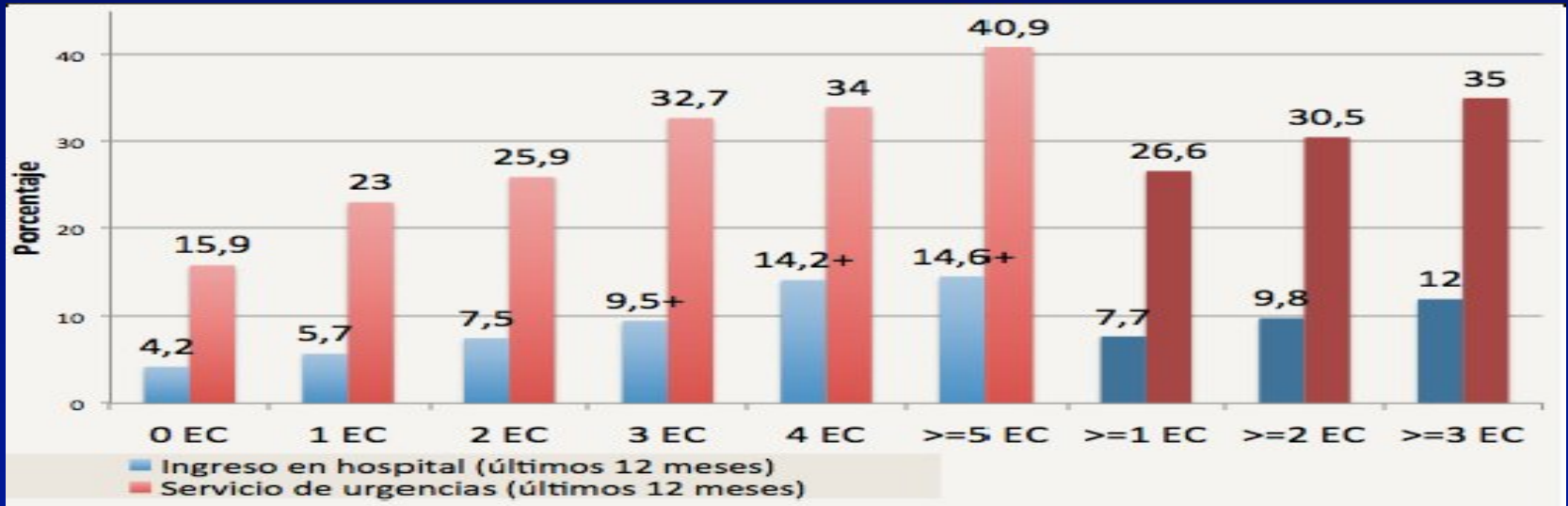




60% of all deaths are due to chronic diseases

CHRONIC DISEASES CAUSE NEARLY 50% OF DISABILITY ADJUSTED BY LIFE YEAR

THE CHALLENGE FOR HEALTH CARE SYSTEMS I



* Ingreso en el hospital de al menos 1 noche.

** Enfermedades Crónicas (EC) de entre: alergias crónicas, artrosis o reumatismo, bronquitis crónica, diabetes, hipertensión, migrañas/jaquecas, dolor o molestias de espalda, cuello, hombro, espalda, cintura, mala circulación, trastornos cardíacos, depresión y/o ansiedad, otros problemas mentales y osteoporosis.

\+ Coeficientes de variación por encima del 16,6%, por lo que la interpretación debe tomarse con precaución debido a la alta variabilidad. El resto de estimaciones obtuvieron un máximo del 13,2%.

Fuente: Encuesta Andaluza de Salud de 2007. Muestra de mayores de 16 años.

Plan Andaluz de Atención Integrada a Pacientes con Enfermedades Crónicas (PAAIPEC). Consejería de Salud, 2012.

THE HEALTH COSTS

- The obvious: health care does indeed cost !
- Previous expenditures/investments in health achieved: longevity, survival to cardiovascular events, survival to cancer, eradication of many infectious diseases…
- Caution with macroeconomic analysis. Point of view of the paradigm: continuous economic growth = absolute truth criterion.
- TWO DIFFERENT "EPIDEMICS" OF CHRONIC DISEASES:
  - Chronic diseases in the very elderly population: the natural way of life decline
  - Early onset of chronic diseases: the most serious, globally deletereous, and most modifiable

THE HEALTH COSTS: MICROECONOMIC

POVERTY LEADS TO CHRONIC DISEASES…

From poverty to chronic diseases

Material deprivation and psychosocial stress

▼

Constrained choices and higher levels of risk behaviour

▼

Increased risk of disease

▼

Disease onset

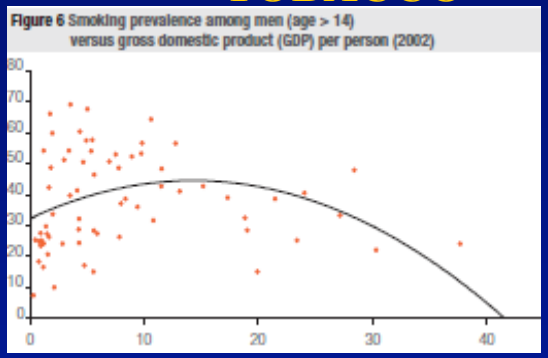
▼

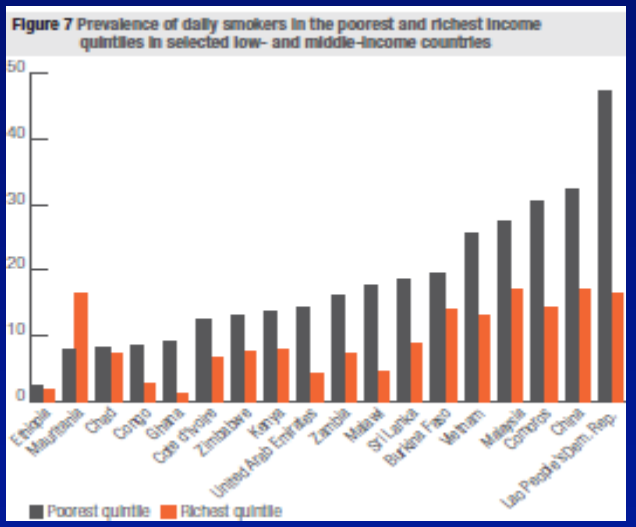
Reduced access to care

▼

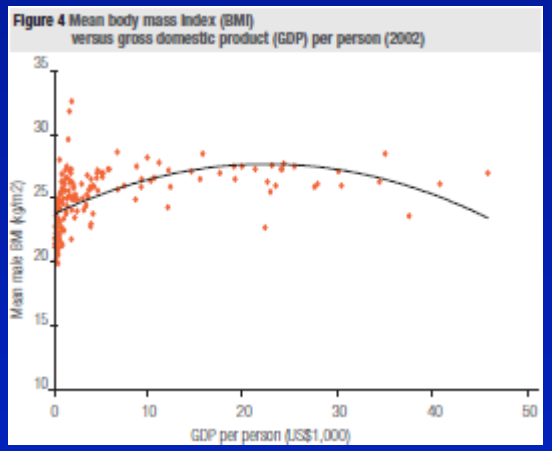
Reduced opportunity to prevent complications

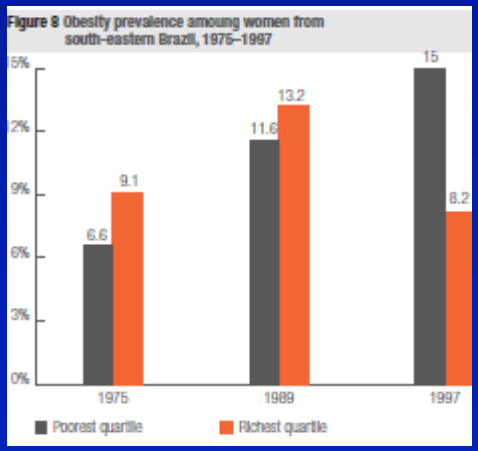
TOBACCO





OBESITY





THE HEALTH COSTS: MICROECONOMIC II

…and CHRONIC DISEASES LEAD TO POVERTY

- Chronic diseases:
  - High-income countries: loss of productivity, loss of incomes
  - Low-medium income countries: One of the leading causes of households' impoverishment.

- Catastrophic expenditure:
  - Acute events in the context of chronic conditions (stroke, coronary syndromes, cancer diagnosis…): disastrously expensive for millions of people.
  - The crossroad: "to suffer/die without treatment or to seek treatment and push family into poverty".

Loss of opportunities of young members of the family…

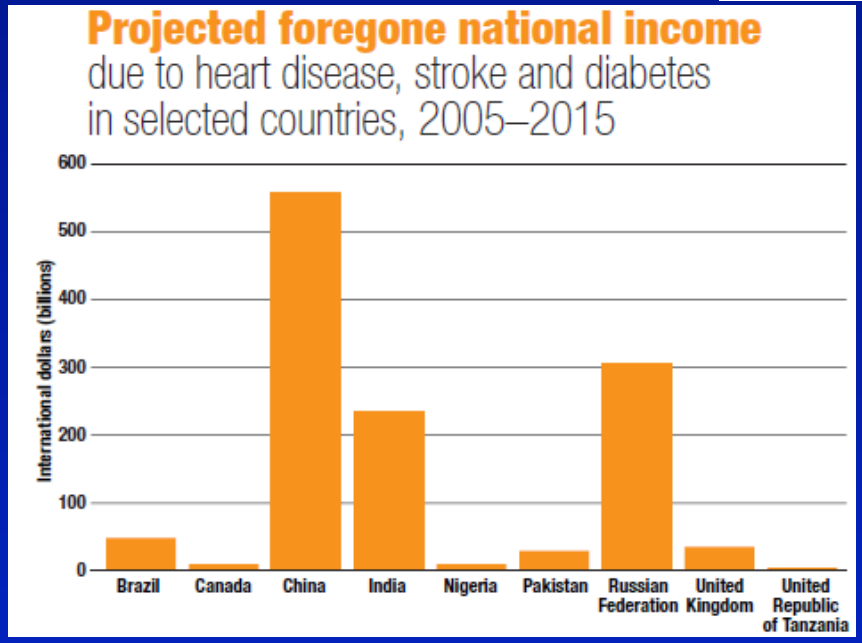
THE HEALTH COSTS: MACROECONOMIC

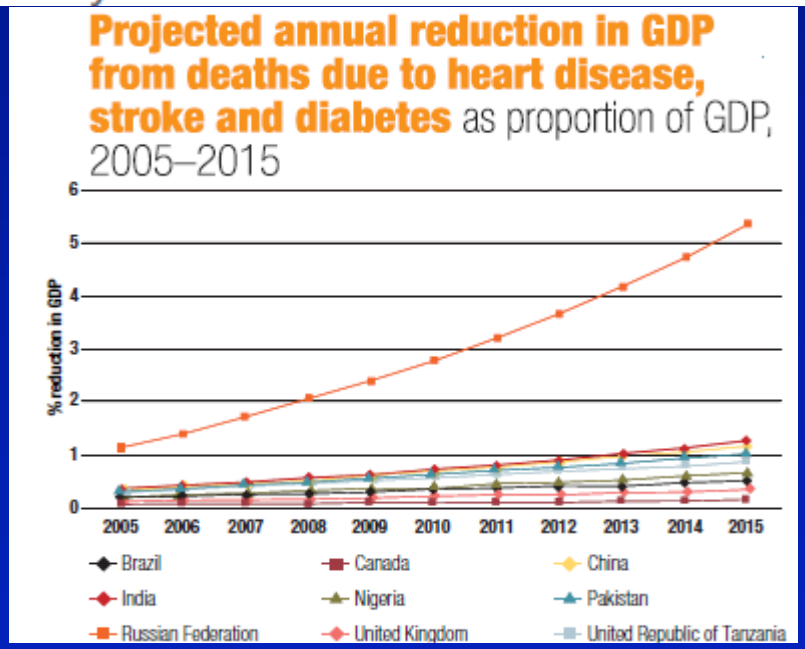
…and CHRONIC DISEASES LEAD TO POVERTY

- **Direct costs** are the costs of medical care in relation to prevention, diagnosis and treatment of disease.

- **Indirect costs** seek to measure the loss of human resources caused by morbidity or premature death.

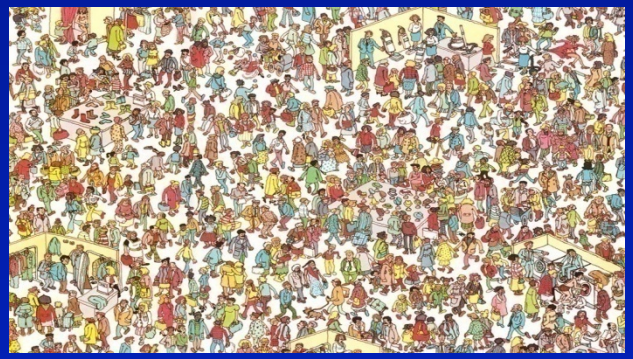
- **Intangible costs** capture the psychological dimensions of illness including pain, bereavement, anxiety and suffering. This is the cost category that is typically hardest to measure.





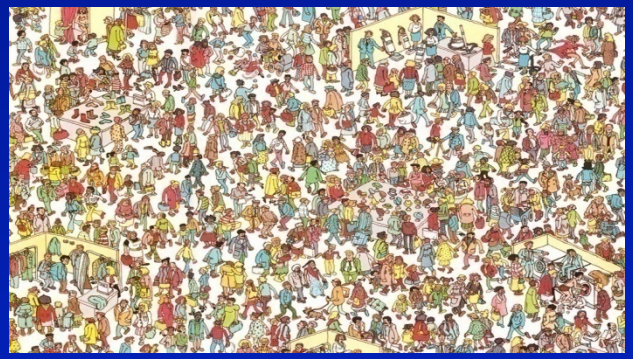
TO TAKE HOME

COMPLEX CHRONIC DISEASES AND PP: EMERGENT POPULATION, THAT INVITES US TO A REDESIGN



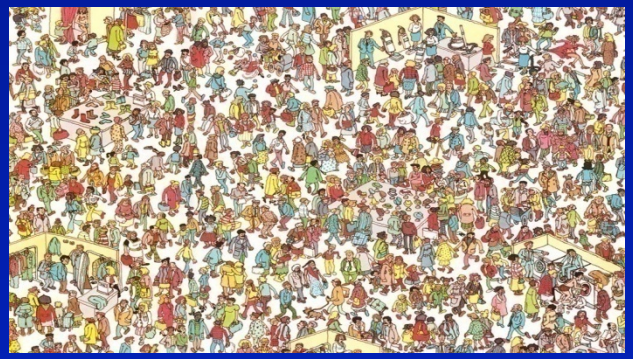
TO TAKE HOME II

COMPLEX CHRONIC DISEASES AND PP: A GLOBAL TASK, WITH NOTABLE SOCIAL IMPACT, MAINLY IN FAMILY ENVIRONMENT, SPECIALLY IN WOMEN



TO TAKE HOME III

COMPLEX CHRONIC DISEASES AND PP: STRONGLY AND RECIPROCALLY LINKED TO IMPOVERISHMENT



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