

# Innovar para transformar el sistema

Julio Mayol

UCM/Hospital Clínico San Carlos

Madrid

Una persona da dinero al médico.

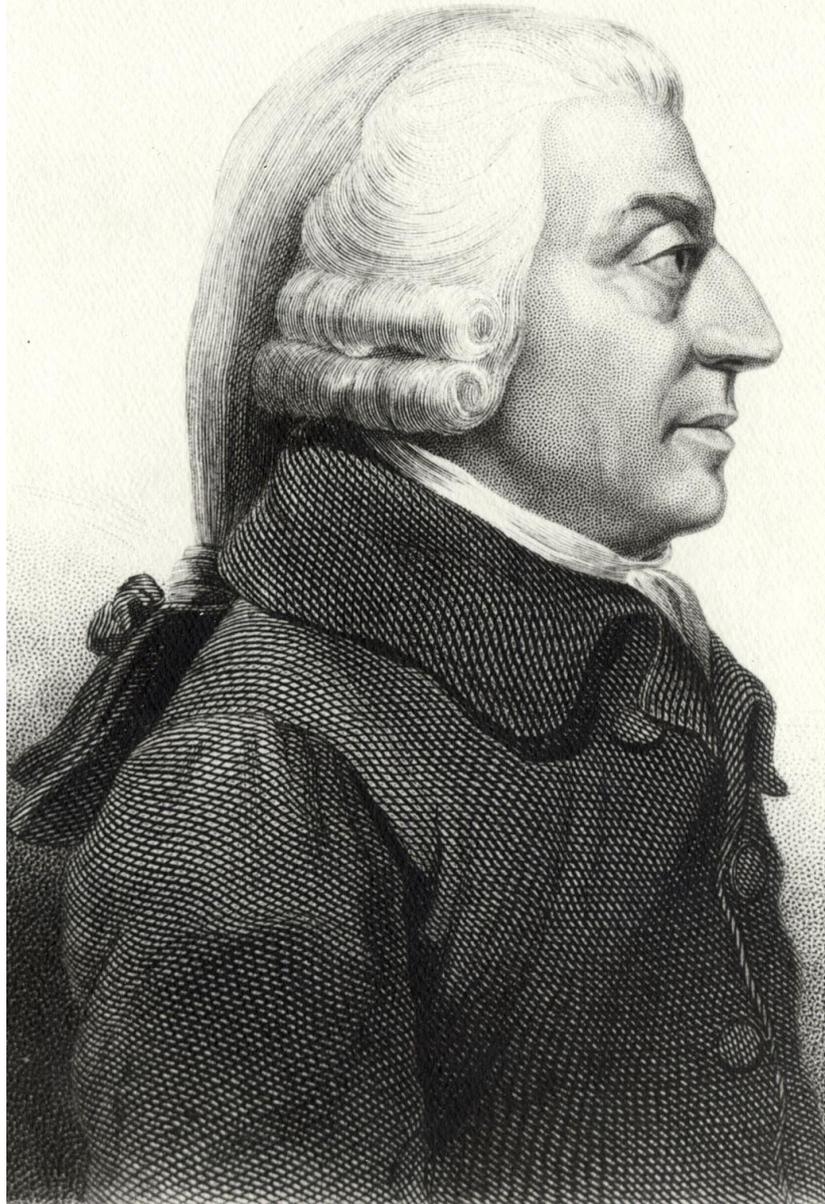
Quizá se cure.

Quizá no se cure.

El Talmud

Tratado Kezubot: 105



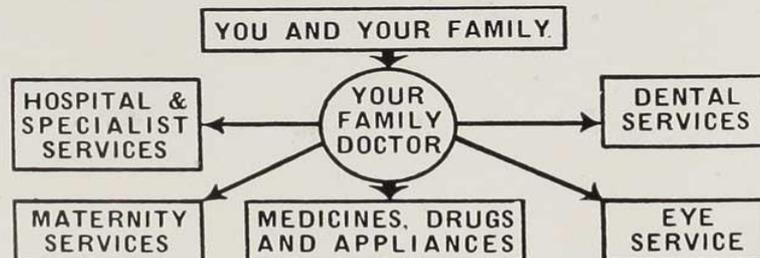




# YOUR NEW NATIONAL HEALTH SERVICE

On 5th July the new National Health Service starts

Anyone can use it—men, women and children. There are no age limits, and no fees to pay. You can use any part of it, or all of it, as you wish. Your right to use the National Health Service does not depend upon any weekly payments (the National Insurance contributions are mainly for cash benefits such as pensions, unemployment and sick pay).



## CHOOSE YOUR DOCTOR NOW

The first thing is to link up with a doctor. When you have done this, your doctor can put you in touch with all other parts of the Scheme as you need them. Your relations with him will be as now, *personal and confidential*. The big difference is that the doctor will not charge you fees. He will be paid, out of public funds to which all contribute as taxpayers.

So choose your doctor now. If one doctor cannot accept you, ask another, or ask to be put in touch with one by the new "Executive Council" which

has been set up in your area (you can get its address from the Post Office).

If you are already on a doctor's list under the old National Health Insurance Scheme, and do not want to change your doctor, you need *do nothing*. Your name will stay on his list under the new Scheme.

But make arrangements for *your family* now. Get an application form E.C.1 for each member of the family either from the doctor you choose, or from any Post Office, Executive Council Office, or Public Library; complete them and give them to the doctor.

There is a lot of work still to be done to get the Service ready. If you make your arrangements in good time, you will be helping both yourself and your doctor.

Issued by the Department of Health for Scotland

This advertisement appears in selected Sunday, Morning and Evening newspapers in Scotland.

# Hechos

- Incremento de conocimiento
- Incremento de tecnología
- Superespecialización
- Industrialización del proceso productivo
- ¿Definición de producto?
- ¿Medición?



# How to Solve The **Cost Crisis** In Health Care

The biggest problem with health care isn't with insurance or politics. It's that we're measuring the wrong things the wrong way.  
*by Robert S. Kaplan and Michael E. Porter*

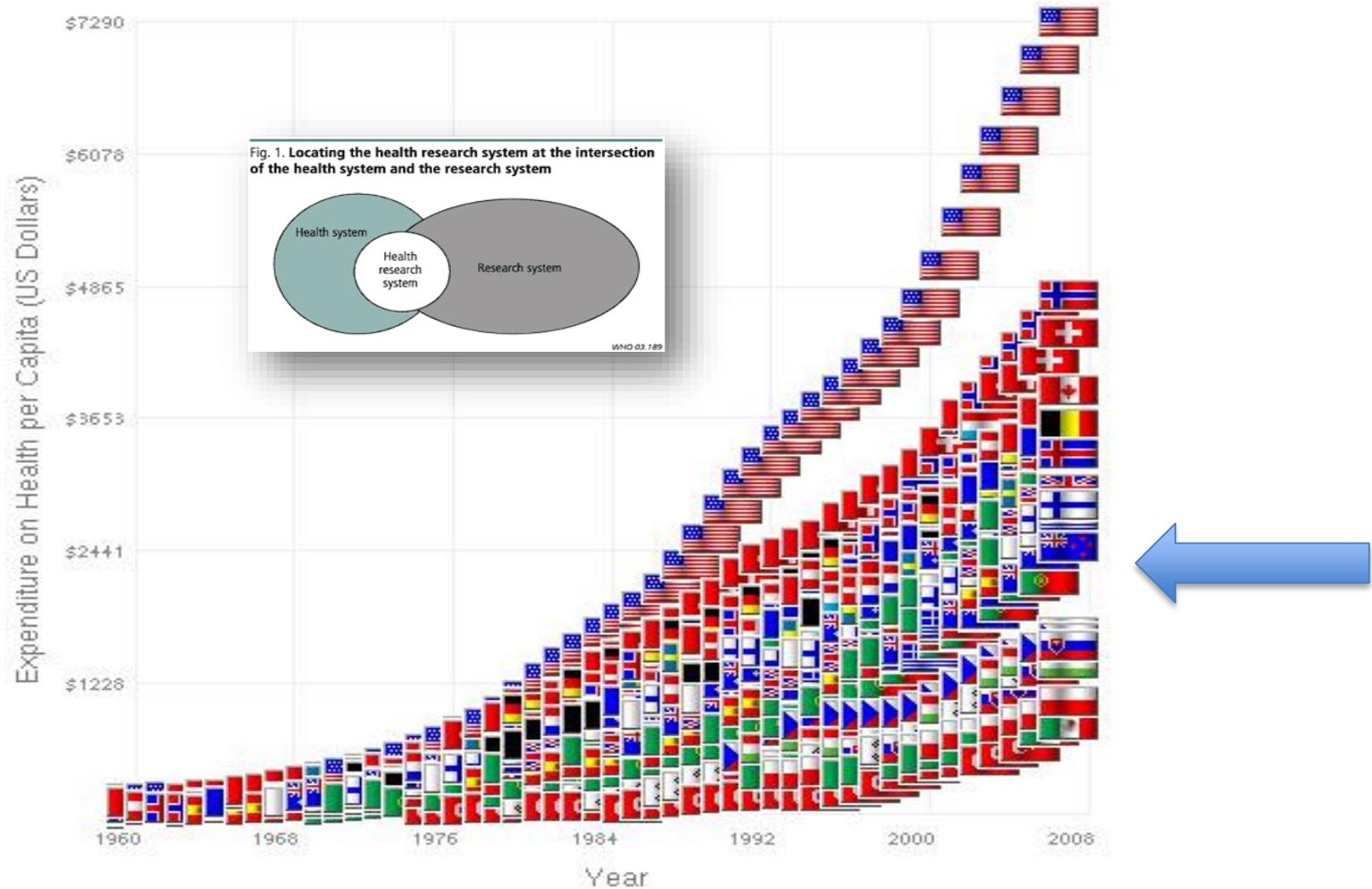
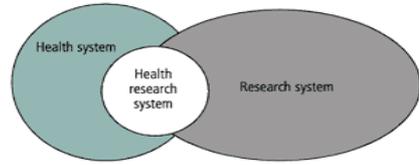
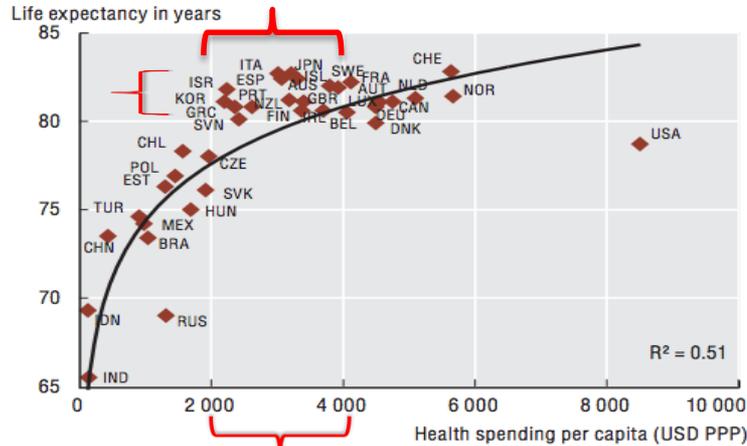


Fig. 1. Locating the health research system at the intersection of the health system and the research system



# Más no siempre es mejor

## 1.1.3. Life expectancy at birth and health spending per capita, 2011 (or nearest year)



Source: OECD Health Statistics 2013, <http://dx.doi.org/10.1787/health-data-en>; World Bank for non-OECD countries.

StatLink <http://dx.doi.org/10.1787/888932916040>

## Years Lived with Disability

Mean YLDs x1000	Mean rank (95% UI)	1990 leading causes	2013 leading causes	Mean rank (95% UI)	Mean YLDs (x1000)	Median percentage change
46068	1.3 (1-2)	1 Low back pain	1 Low back pain	1.0 (1-1)	72318	57% (53 to 61)
40079	2.0 (1-3)	2 Iron-deficiency anaemia	2 Major depression	2.1 (2-4)	51784	53% (49 to 59)
33711	2.8 (1-4)	3 Major depression	3 Iron-deficiency anaemia	3.6 (2-6)	36663	-9% (-10 to -7)
22294	4.7 (4-6)	4 Neck pain	4 Neck pain	4.3 (3-6)	34348	54% (49 to 60)
21633	5.1 (3-7)	5 Other hearing loss	5 Other hearing loss	5.3 (3-9)	32580	51% (45 to 55)
19805	5.8 (4-8)	6 Migraine	6 Migraine	6.6 (3-10)	28898	46% (41 to 50)
17180	6.9 (4-9)	7 Anxiety disorders	7 Diabetes	6.7 (5-9)	29518	136% (127 to 144)
15151	7.9 (6-10)	8 COPD	8 COPD	7.8 (4-10)	26131	72% (67 to 79)
12672	9.5 (7-12)	9 Other musculoskeletal	9 Anxiety disorders	8.5 (5-10)	24356	42% (36 to 47)
12533	9.5 (8-11)	10 Diabetes	10 Other musculoskeletal	9.2 (7-10)	22644	79% (75 to 83)
10337	11.6 (10-13)	11 Falls	11 Schizophrenia	11.5 (11-15)	15204	52% (50 to 54)
9995	12.0 (9-16)	12 Schizophrenia	12 Falls	12.7 (12-14)	12818	23% (14 to 35)
8048	14.7 (12-19)	13 Asthma	13 Osteoarthritis	12.8 (11-15)	12811	75% (73 to 78)
7831	15.5 (10-23)	14 Refraction and accommodation	14 Refraction and accommodation	15.5 (11-22)	11257	44% (40 to 47)
7362	16.2 (13-20)	15 Diarrhoeal diseases	15 Asthma	16.1 (12-21)	10596	32% (29 to 35)
7307	16.4 (14-19)	16 Osteoarthritis	16 Dysthymia	17.4 (14-21)	9849	55% (52 to 57)
6780	18.5 (14-24)	17 Dermatitis	17 Bipolar disorder	17.5 (12-25)	9911	49% (46 to 53)
7491	18.8 (8-36)	18 War and legal intervention	18 Medication overuse headache	17.8 (12-27)	9846	120% (109 to 134)
6643	18.8 (13-26)	19 Bipolar disorder	19 Other mental and substance	18.5 (14-24)	9257	52% (50 to 54)
6368	19.7 (15-24)	20 Dysthymia	20 Dermatitis	18.8 (15-25)	9278	37% (35 to 39)
6076	20.6 (15-25)	21 Other mental and substance	21 Alzheimer's disease	22.2 (18-26)	7774	92% (85 to 99)
5699	22.1 (17-26)	22 Alcohol use disorders	22 Alcohol use disorders	23.0 (18-28)	7654	34% (32 to 37)
5827	22.9 (12-38)	23 Acne vulgaris	23 Epilepsy	23.2 (18-30)	7544	41% (28 to 57)
5365	23.5 (18-29)	24 Epilepsy	24 Edentulism	25.9 (21-31)	6856	46% (43 to 48)
5288	23.9 (17-31)	25 Conduct disorder	25 Diarrhoeal diseases	26.1 (23-30)	6854	-7% (-9 to -5)
		26 Edentulism	26 Acne vulgaris			
		27 Medication overuse headache	29 Conduct disorder			
		28 Alzheimer's disease	52 War and legal intervention			

Figure 3: Top 25 leading causes of YLDs in 1990 and 2013. *Este documento no se descargó de la web del Club Excelencia en Gestión: www.clubexcelencia.org*  
 YLD=years lived with disability. UI=uncertainty interval. COPD=chronic obstructive pulmonary disease.



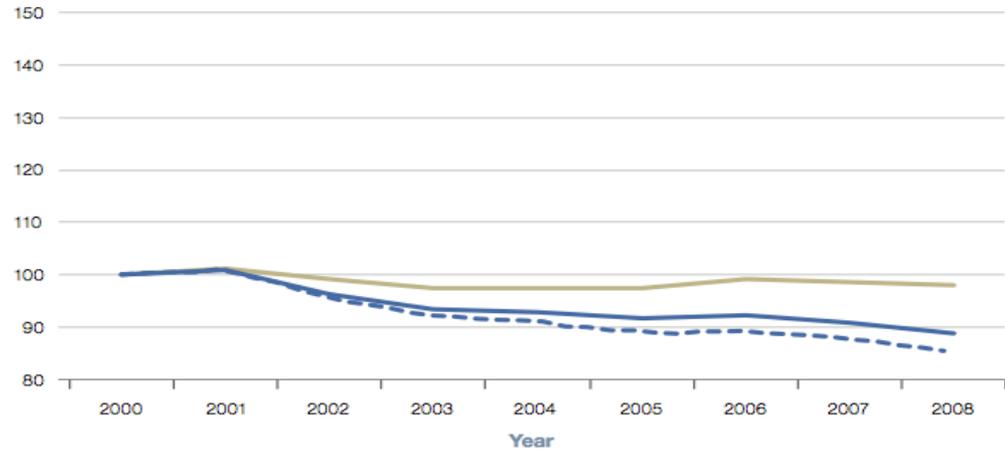




#### Figure 4

Changes in hospital productivity from 2000 to 2008

Index (2000=100)



- NHS productivity, adjusted for quality
- Hospital (HCHS) productivity, adjusted
- - Hospital (HCHS) productivity, unadjusted

#### NOTE

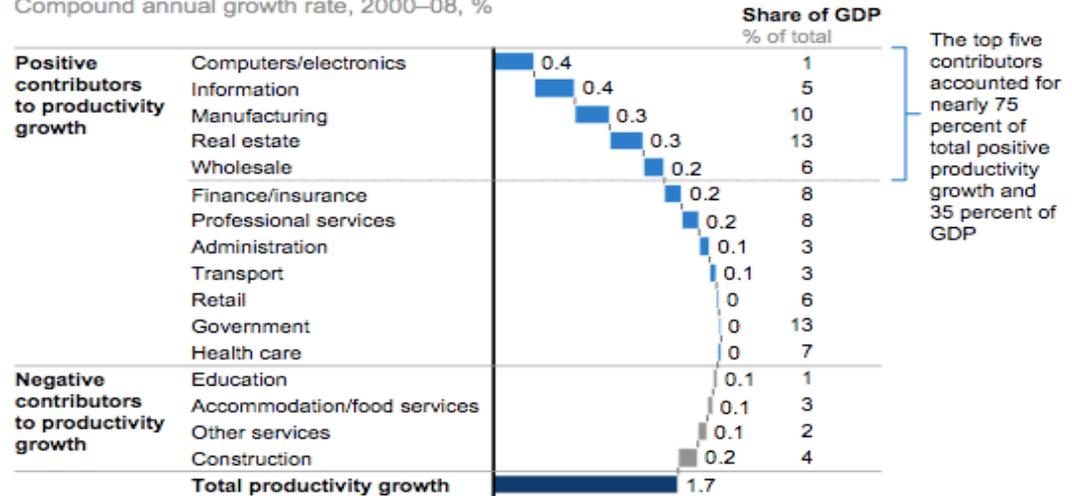
<sup>1</sup> Hospital and Community Health Services (HCHS) includes ambulance and non-acute hospital services (e.g. mental health). Acute hospital care accounts for the majority of inputs, outputs and quality adjustment. ONS do not fully measure community activity which represents 4 per cent of this measure, and any shift in activity from acute care to the community will underestimate productivity.

Source: Office for National Statistics



## The top five sector contributors had a disproportionate impact on total productivity growth between 2000 and 2008

Contributions to labor productivity growth<sup>1</sup>  
Compound annual growth rate, 2000–08, %



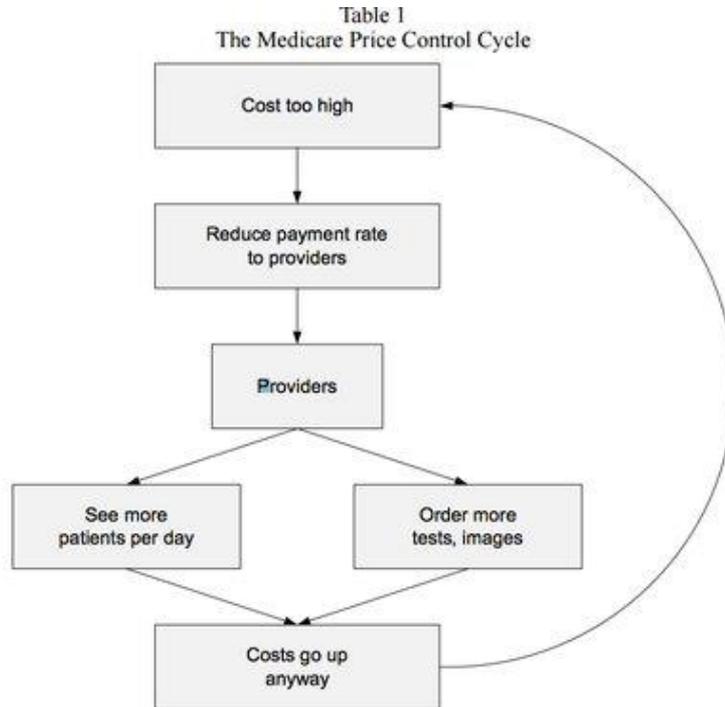
<sup>1</sup> Excludes sectors with contributions with an absolute value of less than 0.015 percent.

SOURCE: US Bureau of Economic Analysis; US Bureau of Labor Statistics; McKinsey Global Institute analysis

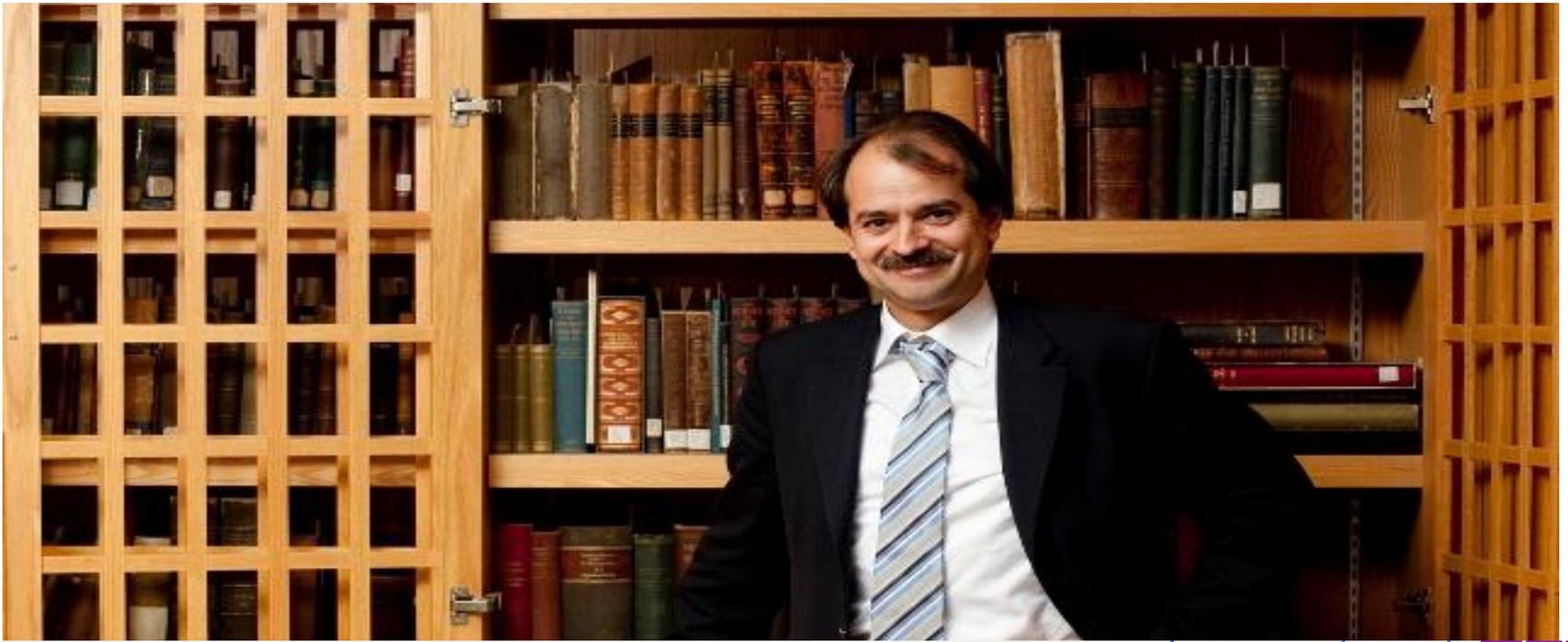


Cutler D. 2010. <http://www.nber.org/papers/w16030>

# ¿Aumento de eficiencia?



A veces las cosas funcionan al revés



[plos.org](https://plos.org)

[create account](#)

[sign in](#)

 **PLOS** | MEDICINE

[Browse](#)

[For Authors](#)

[About Us](#)



[advanced search](#)

 OPEN ACCESS

ESSAY

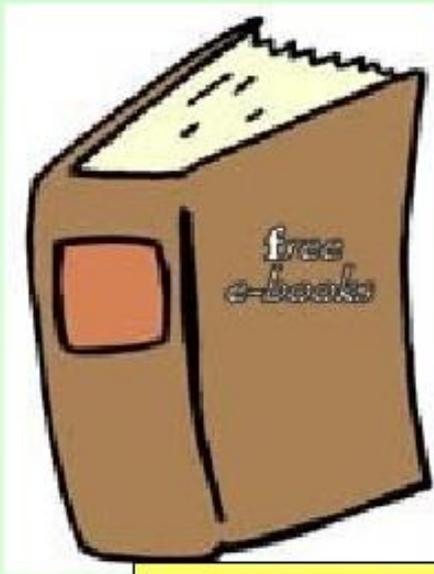
metrics  
unavailable

# Why Most Published Research Findings Are False

John P. A. Ioannidis

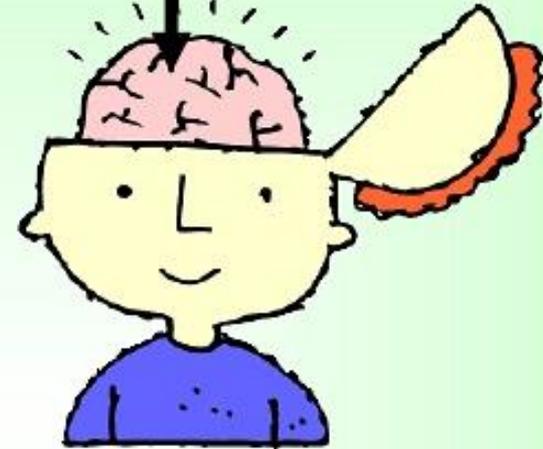
Published: August 30, 2005 • DOI: 10.1371/journal.pmed.0020124

*Este documento ha sido descargado de la web del Club Excelencia en Gestión: [www.clubexcelencia.org](http://www.clubexcelencia.org)*



Guide-lines

Mind-lines



**Evidence based guidelines or collectively constructed “mindlines?”**  
**Ethnographic study of knowledge management in primary care**  
John Gabbay, Andrée le May

BMJ 2004;329:1013 (30 October)

1. Variación no deseada de calidad y resultados
2. Daño a los pacientes
3. Desperdicio de recursos sin maximizar valor
4. Desigualdades e inequidades
5. No prevención de la enfermedad



Todo sistema está  
perfectamente diseñado para  
producir los resultados que  
obtiene





# Definiciones

- Investigar es utilizar dinero para generar conocimiento
- Innovar es utilizar conocimiento para producir valor

# La innovación...

...es ineficiente. Con frecuencia, es indisciplinada, siempre lleva la contraria y es iconoclasta; se realimenta con la confusión y la contradicción.

En pocas palabras, ser innovador es todo lo contrario de lo que la mayoría de los padres quieren para sus hijos, los consejeros delegados para sus compañías y los jefes de estado para sus países.

Los innovadores son insoportables.

Y, sin embargo, sin innovación estamos condenados – por aburrimiento y por monotonía – a la decadencia.

**Nicholas Negroponte**

# Valor en sanidad

$$\frac{(\text{Beneficios} - \text{daño}) + \text{calidad percibida}}{\text{Costes (dinero + tiempo + CO2)}}$$

Sir Muir Gray

# Better value healthcare



# Pay for value

Robert Smoldt

*E-mail: [smoldt.robert@mayo.edu](mailto:smoldt.robert@mayo.edu)*

**Abstract:** Texas Bix Bender is not a known health economist. In fact, he's not an economist at all. He is the author of "Don't Squat with Yer Spurs On! The Cowboy's Guide to Life", and in that book he provides some insight into the issues that affect improving healthcare effectiveness and efficiency. One of his guides to life is as follows: "If you find yourself in a hole, the first thing to do is stop digging" [3].

Transformación de frontera

Cambio de historia

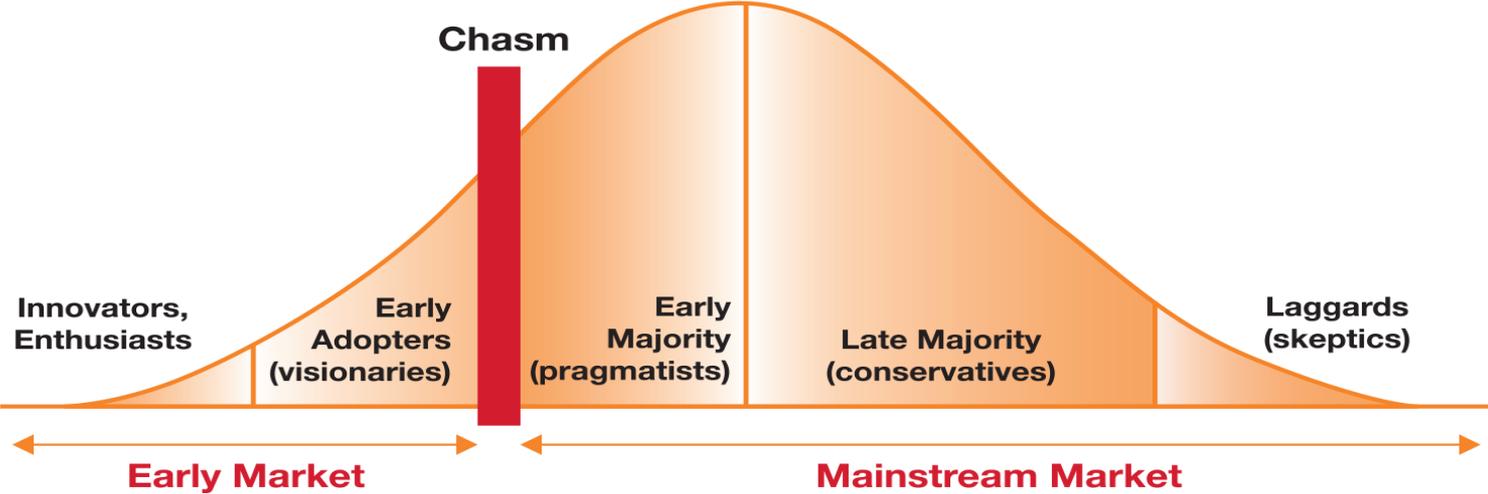
**Radicales**  
**Díscolos**      **Innovadores**  
**Herejes**

Puentes para conectar

Integración de conocimiento



# Innovation Adoption Curve



# Innovación social

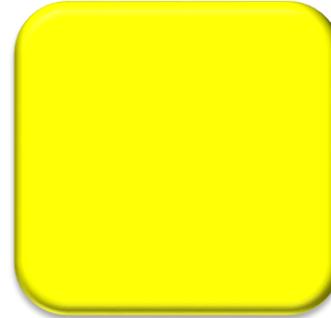
- Competencia vs. colaboración
- Medición de resultados de salud
- Transparencia
- “No hacer” - desinversión
- Rendición de cuentas
- Stewardship

Madrid-MIT  
**m+VISION**  
CONSORTIUM

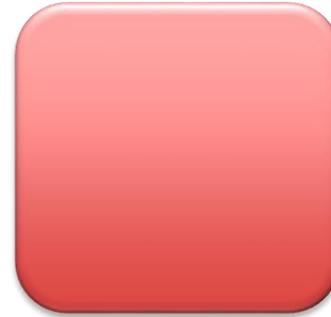
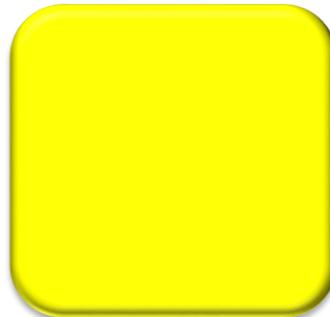
*Innovation, Leadership, Impact*

# Tipos de innovación

Producto



Proceso



Continuista    Rupturista

# Tensión innovadora



# Innovación tecnológica

- **Farmacéutica:** tratamientos curativos, fácil administración
- **Dispositivo:** digitalización, internet, point-of-care, automatización, robotización, menor impacto medio ambiental, mínima invasión
- **Proceso:** datos, inteligencia artificial/big data, medición de resultados, calidad percibida sobre propia salud

# Tejido productivo

- Empresas
  - Spin-off
  - Start-up
  - Nacionales
  - Multinacionales
- Plataforma tecnológica
- FENIN

# Financiación

- Horizonte 2020
- Acción Estratégica en Salud
- FIPSE
- Compra pública innovadora
- CDTI
- Convocatorias privadas
  - Fundación Botín
  - La Caixa

# Evaluación

- Proceso
  - Propiedad Industrial: registros, modelos de utilidad, patentes
- Indicadores de resultado
  - Nuevas líneas y grupos
  - Patentes licenciadas
  - Creación de start-ups y Spin-offs
  - Incorporación tecnológica al SNS
  - Retorno social de la inversión: SROI
  - Valor añadido al sistema

# ¿Objetivos?

- Transferencia de resultados de la investigación - ROI
- Resolver necesidades no cubiertas
  - De los pacientes
  - De los profesionales sanitarios
  - Del sistema: personas, organización, cultura
- Prestigio
- Transformar

# Impacto

- Cómo lo definimos
- En quién lo buscamos
- Cómo lo medimos
- Cómo lo comunicamos

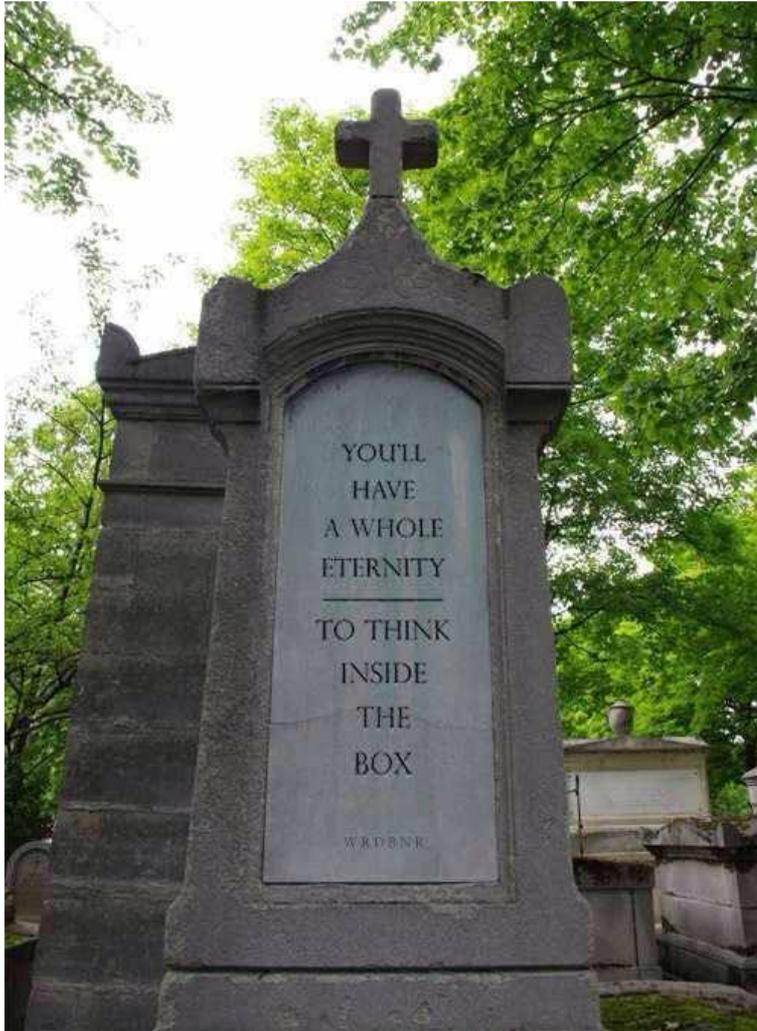


PERMIO NOBEL DE MEDICINA >

# Un fraude científico sacude al Nobel de Medicina

El Gobierno sueco despidió a la cúpula del prestigioso Instituto Karolinska por negligencias tras la muerte de dos pacientes





**Tendremos una eternidad para  
pensar dentro de una caja**

---

*Este documento ha sido descargado de la web del Club Excelencia en Gestión: [www.clubexcelencia.org](http://www.clubexcelencia.org)*

*Este documento ha sido descargado de la web del Club Excelencia en Gestión: [www.clubexcelencia.org](http://www.clubexcelencia.org)*