



# El cantó fosc de la força i la banalitat del mal: Iatrogènia i prevenció.

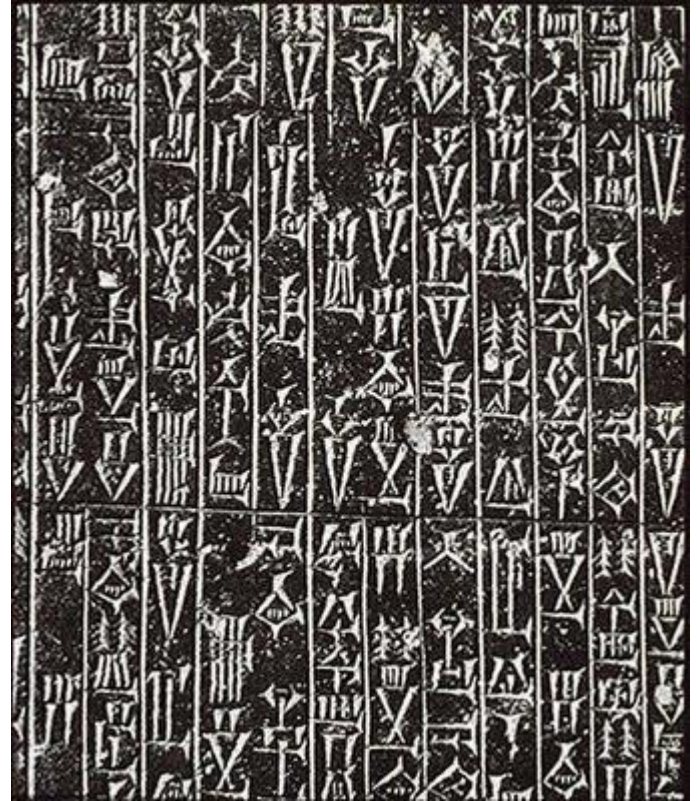
Andreu Segura. Metge de salut pública.

Girona, 17 de novembre de 2016



**Agrupació de Ciències Mèdiques i de la Salut de Girona**





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218.- Si un médico hizo una operación grave con el bisturí de bronce y lo ha hecho morir, o bien si lo operó de una catarata en el ojo y destruyó el ojo de este hombre, se cortarán sus manos.

219.- Si un médico hizo una operación grave con el bisturí de bronce e hizo morir al esclavo de un muskenun, dará otro esclavo equivalente.

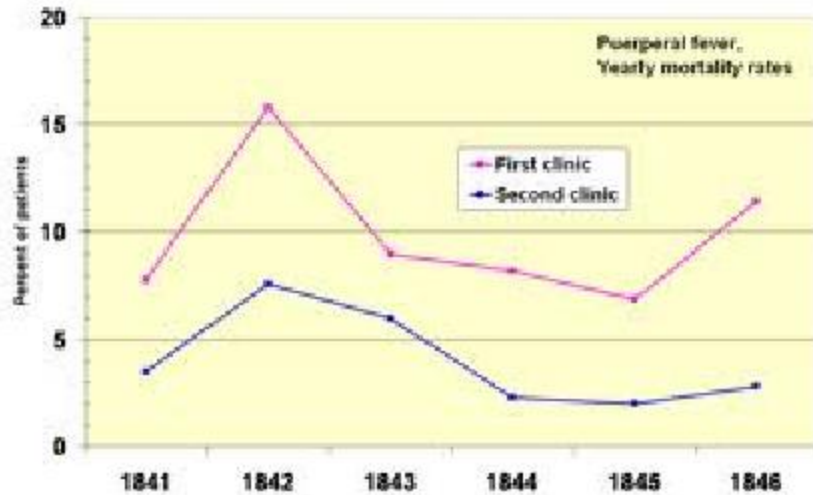
220.- Si operó una catarata con el bisturí de bronce y ha destruido su ojo, pagará en plata la mitad de su precio.

221.- Si un médico curó un miembro quebrado de un hombre libre, y ha hecho revivir una víscera enferma, el paciente dará al médico cinco siclos de plata.

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Pierre-Charles-Alexandre Louis (1787-1872).



**Ignaz Semmelweis**

1818 -1865



**Ernest Amory Codman**

1869 –1940

**CODMAN'S ERROR CLASSIFICATION**

*All results of surgical treatment that lack perfection may be explained by one or more of the following causes:*

- ERRORS DUE TO LACK OF TECHNICAL KNOWLEDGE OR SKILL E-S
- ERRORS DUE TO LACK OF SURGICAL JUDGMENT E-J
- ERRORS DUE TO LACK OF CARE OR EQUIPMENT E-C
- ERRORS DUE TO LACK OF DIAGNOSTIC SKILL E-D

*These are partially controllable by organization:*

- THE PATIENTS' UNCONQUERABLE DISEASE P-D
- THE PATIENTS' REFUSAL OF TREATMENT P-R

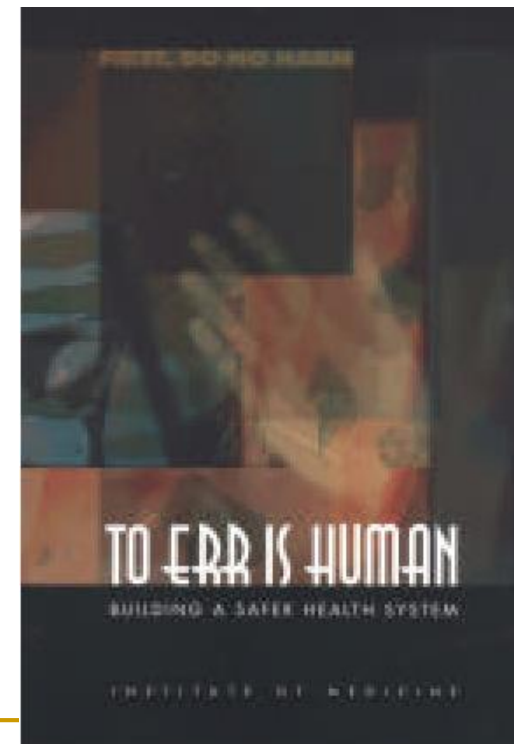
*These are partially controllable by public education:*

- THE CALAMITIES OF SURGERY OR THOSE ACCIDENTS AND COMPLICATIONS OVER WHICH WE HAVE NO CONTROL C

# TO ERR IS HUMAN: BUILDING A SAFER HEALTH SYSTEM

**H**ealth care in the United States is not as safe as it should be--and can be. At least 44,000 people, and perhaps as many as 98,000 people, die in hospitals each year as a result of medical errors that could have been prevented, according to estimates from two major studies. Even using the lower estimate, preventable medical errors in hospitals exceed attributable deaths to such feared threats as motor-vehicle wrecks, breast cancer, and AIDS.

- Efectos adversos 2-4% de las hospitalizaciones
- 6-13% responsables del fallecimiento del paciente
- 40.000-90.000 muertes al año en USA
  - 43.000 por accidentes de tráfico
  - 42.000 por cáncer de mama
  - 16.000 por SIDA
- Coste estimado: 17-29x10<sup>9</sup> \$



## Is US Health Really the Best in the World?

Barbara Starfield, MD, MPH

INFORMATION CONCERNING THE DEFICIENCIES OF US MEDICAL care has been accumulating. The fact that more than 40 million people have no health insurance is well known. The high cost of the health care system is considered to be a deficit, but seems to be tolerated under the assumption that better health results from more expensive care, despite evidence from a few studies indicating that as many as 20% to 30% of patients receive contraindicated care.<sup>1</sup> In addition, with the release of the Institute of Medicine (IOM) report "To Err Is Human,"<sup>2</sup> millions of Americans learned, for the first time, that an estimated 44 000 to 98 000 among them die each year as a result of medical errors.

and adverse effects that occur because of iatrogenic damage not associated with recognizable error include:

- 12 000 deaths/year from unnecessary surgery
- 7 000 deaths/year from medication errors in hospitals
- 20 000 deaths/year from other errors in hospitals
- 80 000 deaths/year from nosocomial infections in hospitals
- 106 000 deaths/year from nonerror, adverse effects of medications

These total to 225 000 deaths per year from iatrogenic causes. Three caveats should be noted. First, most of the data are derived from studies in hospitalized patients. Second, these estimates are for deaths only and do not include adverse effects that are associated with disability or discomfort. Third, the estimates of death due to error are lower than those in the IOM report.<sup>1</sup> If the higher estimates are used, the deaths due to iatrogenic causes would range from 230 000 to 284 000. In any case, 225 000 deaths per year constitutes the third leading cause of death in the United States, after deaths from heart disease and cancer. Even if these figures are overestimated, there is a wide margin between these numbers of deaths and the next leading cause of death (cerebrovascular disease).

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## Chronicle of an Unforetold Death

Neil A. Holtzman, MD, MPH

### Table 1. Lessons From Barbara's Death

Lack of coordination—providers are not notified of sudden and unexpected deaths

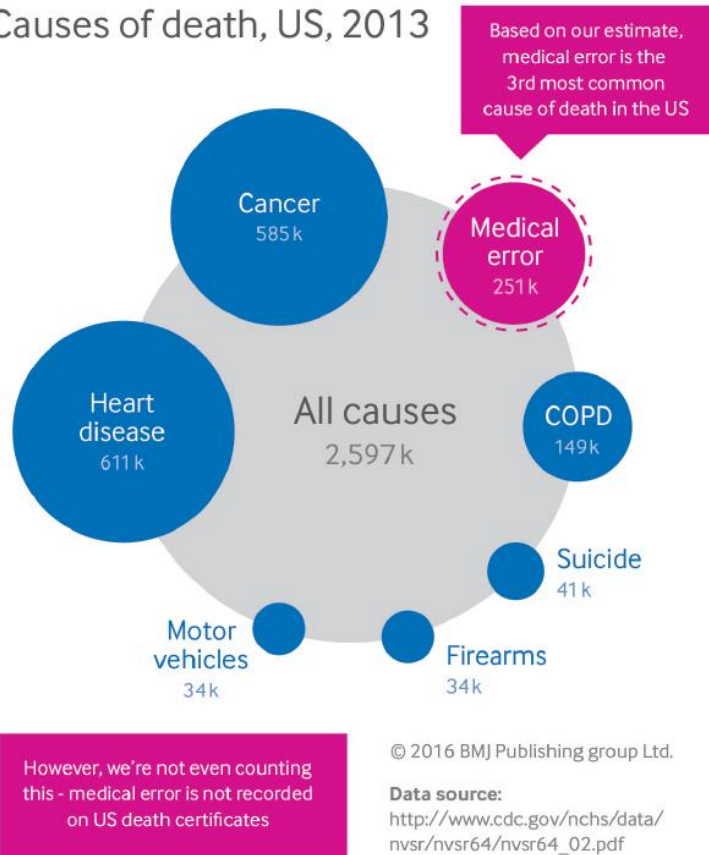
Underreporting of possible adverse drug events

Multimorbidity—best appreciated by primary care physicians

Inadequacy of randomized controlled trials

Potential bias in randomized controlled trials sponsored and supported by the pharmaceutical industry

## Causes of death, US, 2013



## Medical error—the third leading cause of death in the US

Medical error is not included on death certificates or in rankings of cause of death. **Martin Makary** and **Michael Daniel** assess its contribution to mortality and call for better reporting

Fig 1 Most common causes of death in the United States, 2013<sup>2</sup>

### Case history: role of medical error in patient death

A young woman recovered well after a successful transplant operation. However, she was readmitted for non-specific complaints that were evaluated with extensive tests, some of which were unnecessary, including a pericardiocentesis. She was discharged but came back to the hospital days later with intra-abdominal hemorrhage and cardiopulmonary arrest. An autopsy revealed that the needle inserted during the pericardiocentesis grazed the liver causing a pseudoaneurysm that resulted in subsequent rupture and death. The death certificate listed the cause of death as cardiovascular.

## Prevención, iatrogenia y salud pública

*Not for the good that it will do  
(No por el bien que se va a hacer)  
but that nothing may be left undone  
(sino para que nada se quede sin hacer)  
on the margin of the impossible  
(hasta el límite de lo imposible)*

T.S. Eliot  
*The Family Reunion* (1939)

<http://dx.doi.org/10.1016/j.gaceta.2014.02.002>

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# "An ounce of prevention is worth a pound of cure"



Fires were very dangerous threat to Philadelphians, so Franklin set about trying to remedy the situation. In 1736, he organized Philadelphia's Union Fire Company, the first in the city. His famous saying, "An ounce of prevention is worth a pound of cure," was actually fire-fighting advice.

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No curative power is claimed  
for PHILIP MORRIS . . . but

**AN OUNCE OF  
PREVENTION  
is Worth a Pound  
of Cure!**

**PHILIP  
MORRIS**

are scientifically  
proved far less  
irritating to the  
smoker's nose  
and throat.



**CALL FOR PHILIP MORRIS** for MORRIS

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# Maleficencia en los programas de prevención

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i LUCAS

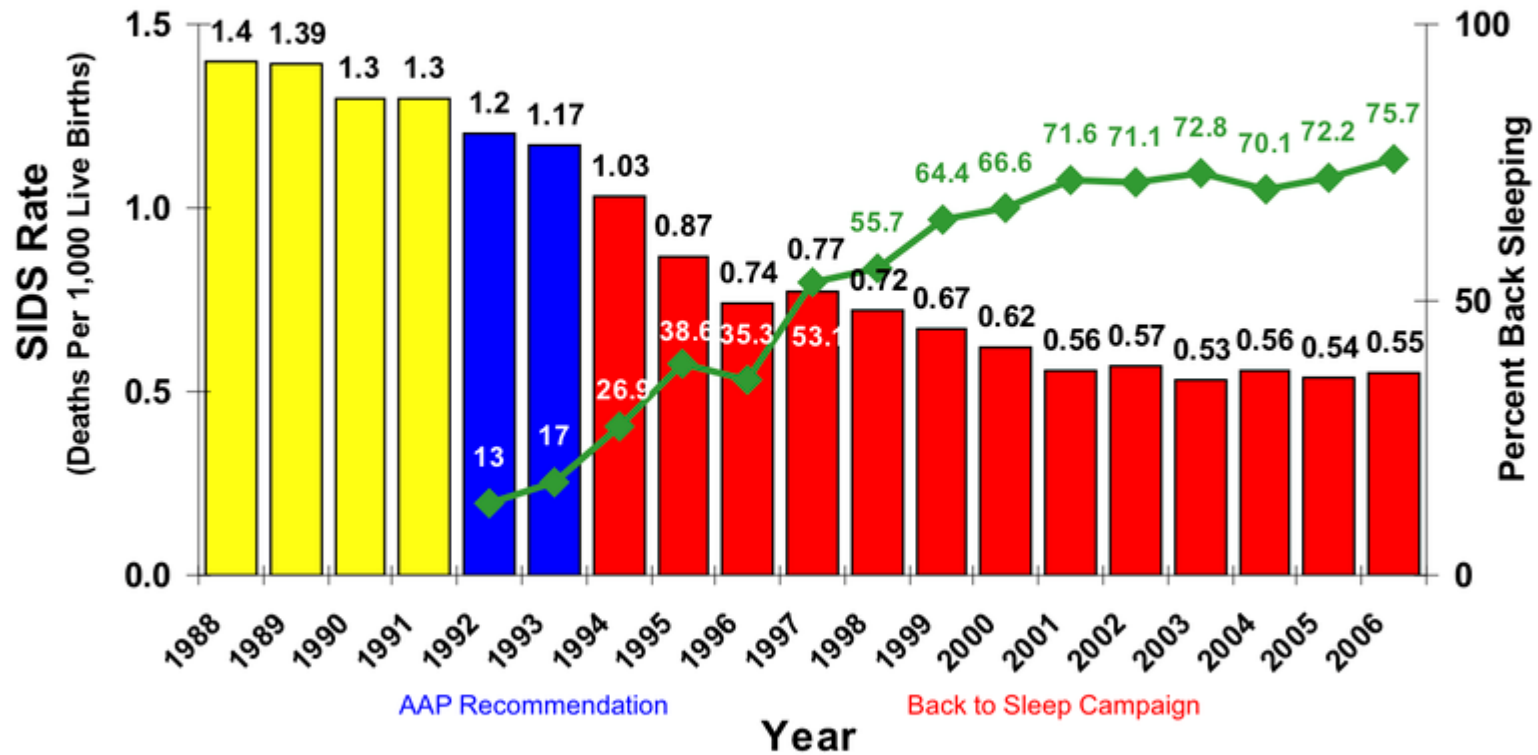
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Maleficencia en los programas de prevención

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de la Fundació **24**  
Victor Grifols i Lucas

# SIDS Rate and Back Sleeping (1988 – 2006)



SIDS Rate Source: CDC, National Center for Health Statistics,  
Sleep Position Data: NICHD, National Infant Sleep Position Study.

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# Prevention of sudden infant death syndrome (SIDS) due to an active health monitoring system 20 years prior to the public “Back to Sleep” campaigns

**M Vennemann, D Fischer, G Jorch, T Bajanowski**

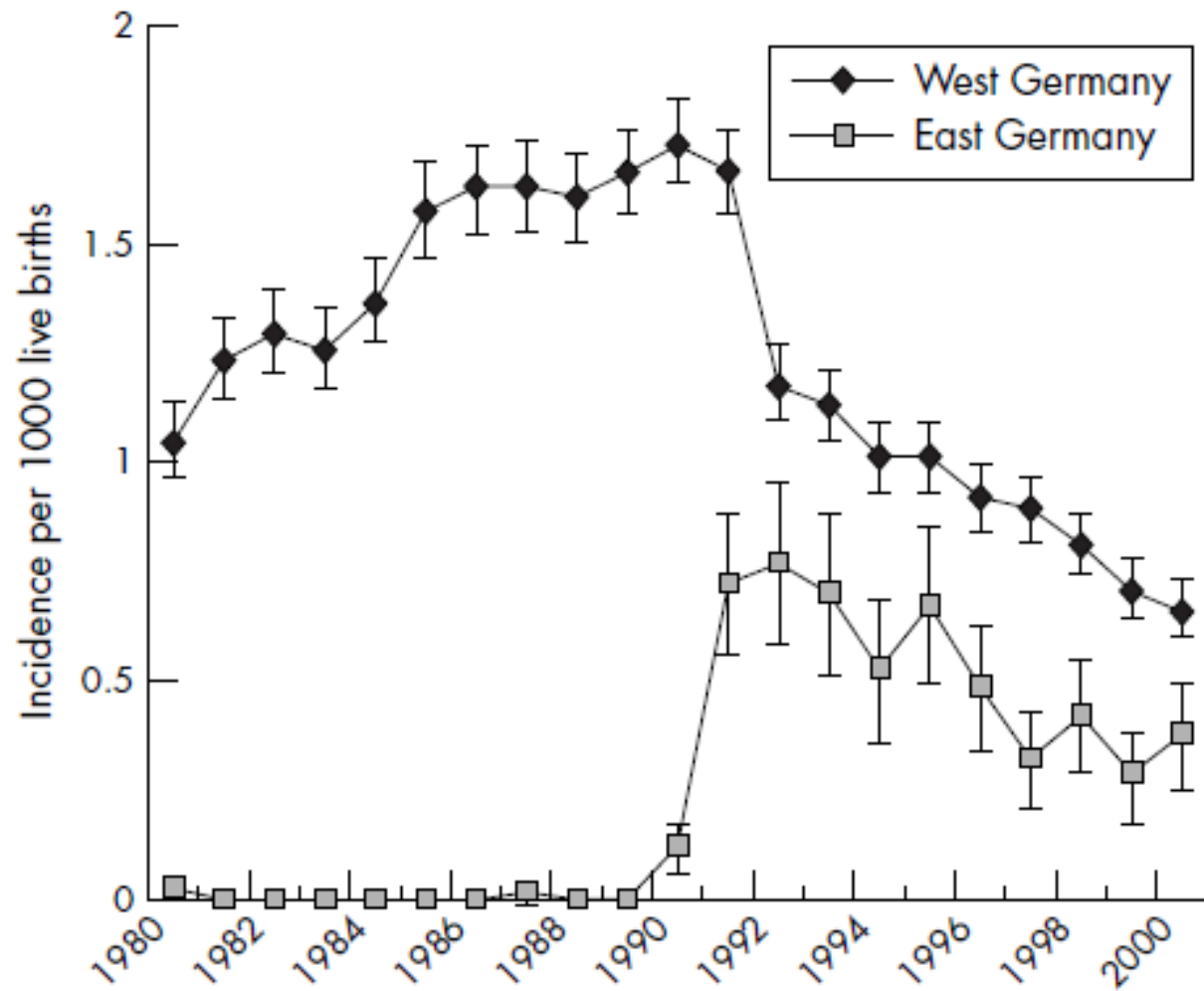
**Background:** Before reunification, the post-neonatal mortality rate was lower in East Germany than in West Germany. Moreover, the incidence of SIDS (sudden infant death syndrome) was much lower in the East.

**Methods:** Mortality data on sudden infant death syndrome (SIDS) from West and East Germany since 1980 as well as post-neonatal mortality data for both states since 1970 were examined. 95% Confidence intervals were calculated for the rates. Witnesses from the former East Germany who were involved at the time were also interviewed and archives were searched.

**Results:** We found that as early as 1972 active monitoring of infant and child mortality rates in East Germany had shown that the prone sleeping position was dangerous for infants: the post-neonatal mortality rate was approximately 1 per 1000 live births lower in East than in West Germany during the 20 years before reunification. In contrast, in the West, prone sleeping was only discovered to be a risk factor for SIDS in the early 1990s.

**Conclusions:** Active monitoring is an effective tool in the early detection of risk factors and serves to prevent unnecessary deaths.





**Figure 2** Official SIDS incidence in East and West Germany between 1980 and 2000.

# Risks and Benefits of Estrogen Plus Progestin in Healthy Postmenopausal Women

Principal Results From the Women's Health Initiative  
Randomized Controlled Trial

**Conclusions** Overall health risks exceeded benefits from use of combined estrogen plus progestin for an average 5.2-year follow-up among healthy postmenopausal US women. All-cause mortality was not affected during the trial. The risk-benefit profile found in this trial is not consistent with the requirements for a viable intervention for primary prevention of chronic diseases, and the results indicate that this regimen should not be initiated or continued for primary prevention of CHD.

*JAMA. 2002;288:321-333*

[www.jama.com](http://www.jama.com)

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## Hormone replacement therapy

# The arrogance of preventive medicine

David L. Sackett

**P**reventive medicine displays all 3 elements of arrogance. First, it is *aggressively assertive*, pursuing symptomless individuals and telling them what they must do to remain healthy. Occasionally invoking the force of law (immunizations, seat belts), it prescribes and proscribes for both individual patients and the general citizenry of every age and stage. Second, preventive medicine is *presumptuous*, confident that the interventions it espouses will, on average, do more good than harm to those who accept and adhere to them. Finally, preventive medicine is *overbearing*, attacking those who question the value of its recommendations.

*Correspondence to: Dr. David L. Sackett, Trout Research & Education Centre at Irish Lake, RR1, Markdale ON N0C 1H0; fax 519 986-9951; sackett@bmts.com*

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## Routine vs selective episiotomy: a randomised controlled trial

Argentine Episiotomy Trial Collaborative Group

### Summary

Episiotomy is a widely-done intervention in childbirth, regardless of poor scientific evidence of its benefits. This randomised controlled trial compares selective with routine use of a mediolateral episiotomy for women having first and second deliveries in 8 public maternity units in Argentina.

2606 women participated; 1555 were nulliparous (778 in the selective group and 777 in the routine group) and 1051 primiparous (520 in the selective group and 531 in the routine group). The two interventions compared were selective (limited to specified maternal or fetal indications), and routine episiotomy (following the hospital's previous policy).

Episiotomy was done in 30·1% of deliveries in the selective, and 82·6% in the routine group. The main outcome measure was severe perineal trauma. Severe perineal trauma was uncommon in both groups but was slightly less frequent in the selective group (1·2% vs 1·5%). Anterior perineal trauma was more common in the selective group but posterior perineal surgical repair, perineal pain, healing complications, and dehiscence were all less frequent in the selective group. Routine episiotomy should be abandoned and episiotomy rates above 30% cannot be justified.

*Lancet* 1993; **342**: 1517–18



## Re: Overdiagnosis and Overtreatment in Cancer: An Opportunity for Improvement

Esserman LJ, Thompson IM, Reid B

JAMA 2013;310:797-8

The authors made some important recommendations. First, physicians, patients, and the general public must understand the problem and consequences of overdiagnosis related to cancer screening. The authors specifically mention prostate screening, along with breast and thyroid screening, as a problem. Second, the term *cancer* may not be justified or appropriate for some of these “lesions” we now identify as cancer. The latter term should be reserved for lesions with a reasonable chance of lethal progression if left untreated. Of course, the authors advocate for molecular markers that would differentiate between benign-acting neoplasms and neoplasms that have the potential to invade and metastasize (ie, cancers). Until such reliable markers arrive, the nomenclature might be changed. The authors suggest that some of these lesions could be called *indolent lesions of epithelial origin*, or *IDLE*. They cite the grade 1 papillary tumor now called a PUNLMP (papillary urothelial neoplasm of low malignant potential) as a prime example of avoiding the “C” word. Third, large observational data sets or registries should be created for these lesions of low malignant potential to further emphasize the low risk of active surveillance (AS). Fourth, overdiagnosis should be mitigated by focusing screening on high-risk populations and avoiding detection of inconsequential neoplasms.

SINÉCROQUE

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## NEUROBLASTOMA SCREENING AT ONE YEAR OF AGE

FREIMUT H. SCHILLING, M.D., CLAUDIA SPIX, PH.D., FRANK BERTHOLD, M.D., RUDOLF ERTTMANN, M.D.,  
NATALJA FEHSE, M.D., BARBARA HERO, M.D., GISELA KLEIN, PH.D., JOHANNES SANDER, M.D., KERSTIN SCHWARZ, M.D.,  
JOERN TREUNER, M.D., ULRICH ZORN, PH.D., AND JOERG MICHAELIS, M.D.

**Background** Neuroblastoma is the second most common type of childhood tumor. It is not known whether screening for neuroblastoma at one year of age reduces the incidence of metastatic disease or mortality due to neuroblastoma.

**Methods** We offered urine screening for neuroblastoma at approximately one year of age to 2,581,188 children in 6 of 16 German states from 1995 to 2000. A total of 2,117,600 eligible children in the remaining states served as controls. We compared the two groups in terms of the incidence of disseminated disease and mortality from neuroblastoma.

**Conclusions** The present findings do not support the usefulness of general screening for neuroblastoma at one year of age. (N Engl J Med 2002;346:1047-53.)

**Results** A total of 1,475,773 children (61.2 percent of those who were born between July 1, 1994, and October 31, 1999) underwent screening. In this group, neuroblastoma was detected by screening in 149 children, of whom 3 have died. Fifty-five children who had negative screening tests were subsequently given a diagnosis of neuroblastoma; 14 of these children have died. The screened group and children in the control area had a similar incidence of stage 4 neuroblastoma (3.7 cases per 100,000 screened children [95 percent confidence interval, 2.7 to 4.7] and 3.8 per 100,000 controls [95 percent confidence interval, 2.9 to 4.6]) and a similar rate of death among children with neuroblastoma (1.3 deaths per 100,000 screened children [95 percent confidence interval, 0.7 to 1.8] and 1.2 per 100,000 controls [95 percent confidence interval, 0.7 to 1.7]). Comparison of the screened group and the children in the control area revealed substantial overdiagnosis in the former group (an estimated rate of 7 cases per 100,000 children [95 percent confidence interval, 4.6 to 9.2]); the overdiagnosis rate represents children who had neuroblastoma that was diagnosed by screening but who would not benefit from earlier diagnosis and treatment.

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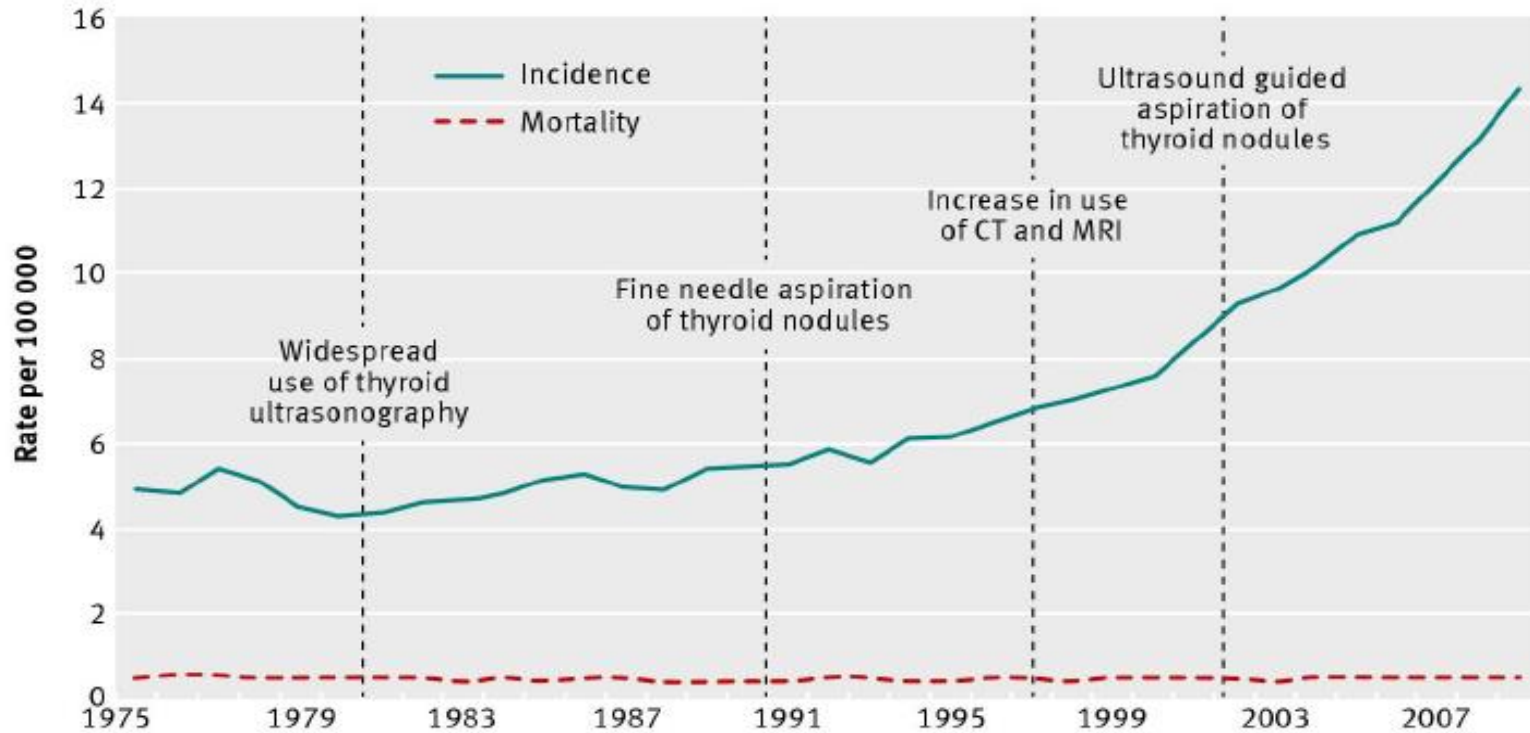
**TABLE 5. ESTIMATED RATES OF CASES DETECTED EARLY AND EXCESS CASES NOT EXPLAINED BY EARLY DETECTION.\***

DIAGNOSES	CONTROL AREA	SCREENED GROUP	DIFFERENCE BETWEEN GROUPS
			rate per 100,000 births (95% CI)
At screening age (12–24 mo)	3.2 (2.4 to 3.9)	10.9 (9.3 to 12.6)	7.8 (5.9 to 9.6) (excess in the screened group)
After screening age (25–60 mo)	4.1 (3.2 to 5.0)	3.3 (2.3 to 4.3)	0.8 (–0.6 to 2.1) (cases detected early by screening)
Total (12–60 mo)	7.3 (6.1 to 8.5)	14.2 (12.2 to 16.1)	7.0 (4.6 to 9.2) (overdiagnosis — excess not explained by early detection)

\*All children were born between 1994 and 1999. Apparent discrepancies are due to rounding.



## Thyroid cancer: zealous imaging has increased detection and treatment of low risk tumours



Incidence of and mortality from thyroid cancer in the US, 1975-2009<sup>3</sup> and advent of new technologies

# Thyroid cancer: zealous imaging has increased detection and treatment of low risk tumours

Juan P Brito *instructor of medicine*<sup>1,2</sup>, John C Morris *professor*<sup>1</sup>, Victor M Montori *professor*<sup>1,2</sup>

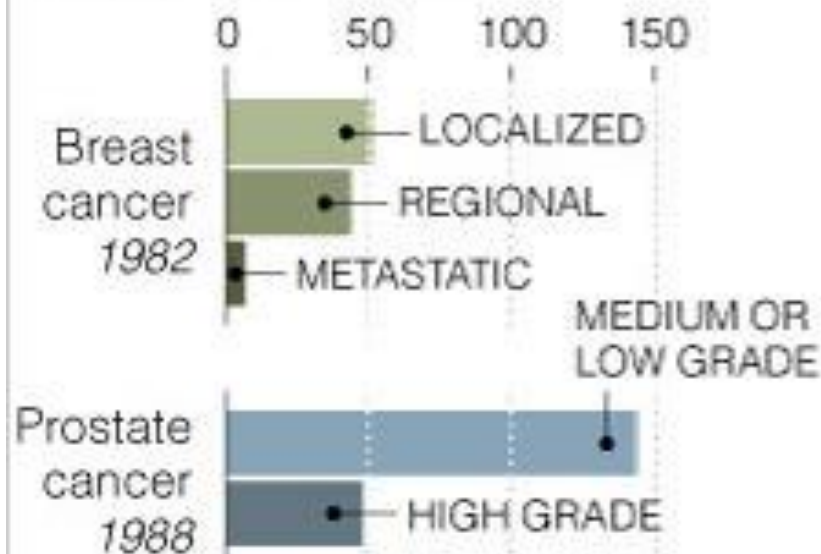
Thyroid cancer	Proportion of all thyroid cancers	Change in incidence over past three decades	Change in mortality over past three decades	Mortality	Treatment		
					Type of intervention	Benefits	Harms
Papillary	85%	3-fold increase	Unchanged	1-2% at 20 years	Thyroidectomy/radioactive iodine/thyroid hormone replacement	Unclear, possible decrease in mortality from 0 to 2/1000 patients compared with active surveillance	Anxiety, insurability, need for lifelong thyroid replacement, cost, burden of follow-up, complication from surgery and radioactive iodine
Follicular	11%	Unchanged	Unchanged	10-20% at 10 years	Thyroidectomy/radioactive iodine/thyroid hormone replacement	Clear benefit in mortality (50% reduction in cancer death rate on average)	
Medullary	3%	Unchanged	Unchanged	25-50% at 10 years	Thyroidectomy/thyroid hormone replacement	Some patients can be cured with surgery	Anxiety, insurability, need for lifelong thyroid replacement, cost, burden of follow-up, complication from surgery
Anaplastic	1%	Unchanged	Unchanged	90% at 5 years	Thyroidectomy/chemotherapy/thyroid hormone replacement	Some benefit (prolongs survival by months)	As above plus side effects from chemotherapy

## Better Detection, Similar Results

A new paper finds that the widespread adoption of regular breast and prostate cancer screening has led to an expected increase in the detection of early stage cancers but has not substantially reduced the incidence of advanced and late-stage cancers.

### Before widespread screening

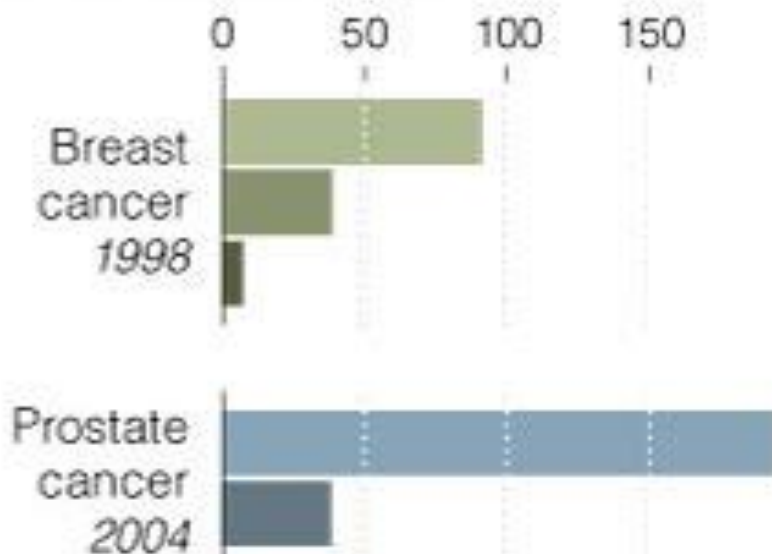
*Incidence per 100,000*



Source: JAMA

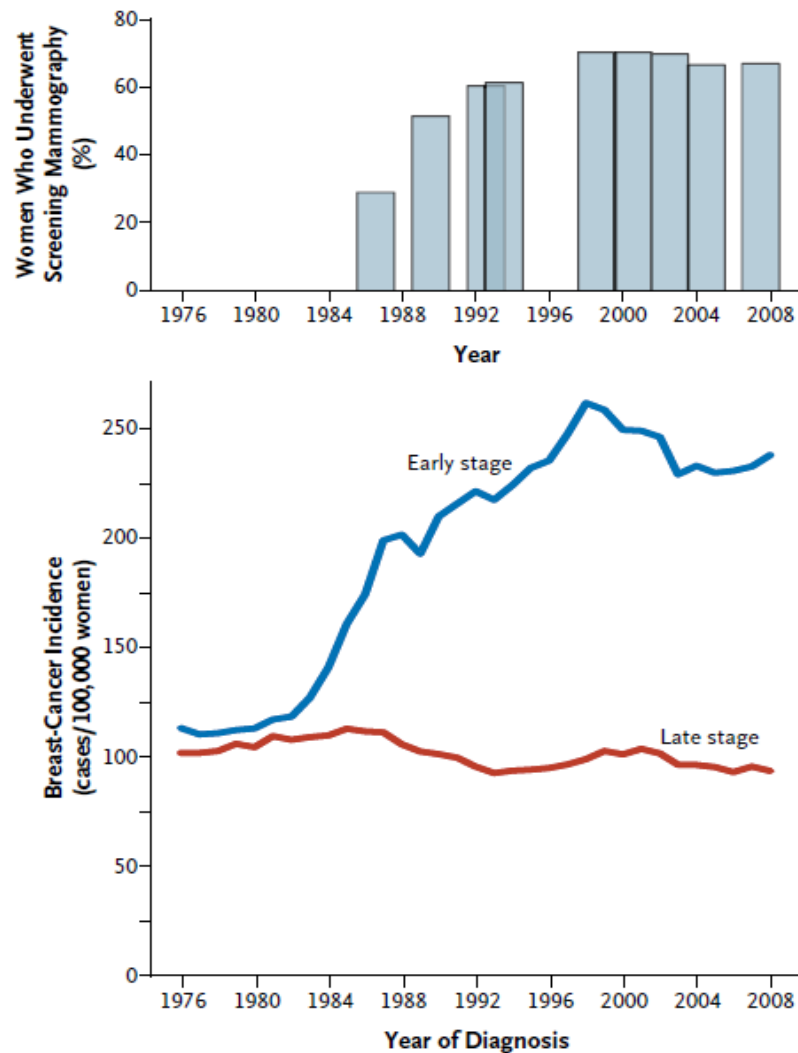
### Sixteen years later

*Incidence per 100,000*

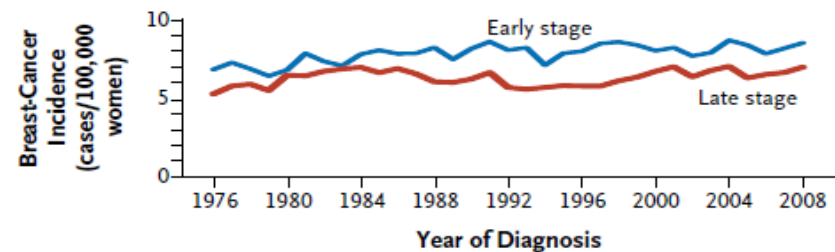


THE NEW YORK TIMES

**A Women 40 Yr of Age or Older**



**B Women Younger Than 40 Yr of Age**



**Figure 1. Use of Screening Mammography and Incidence of Stage-Specific Breast Cancer in the United States, 1976–2008.**

Panel A shows the self-reported use of screening mammography and the incidence of stage-specific breast cancer among women 40 years of age or older. Panel B shows the incidence of stage-specific breast cancer among women who generally did not have exposure to screening mammography — those younger than 40 years of age.



# The benefits and harms of breast cancer screening: an independent review

Review

*Independent UK Panel on Breast Cancer Screening\**

*Lancet* 2012; 380: 1778–86

Published Online

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<http://dx.doi.org/10.1016/>

S0140-6736(12)61611-0

See [Editorial](#) page 1714

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**Panel concludes that screening reduces breast cancer mortality but that some overdiagnosis occurs. Since the estimates provided are from studies with many limitations and whose relevance to present-day screening programmes can be questioned, they have substantial uncertainty and should be regarded only as an approximate guide. If these figures are used directly, for every 10 000 UK women aged 50 years invited to screening for the next 20 years, 43 deaths from breast cancer would be prevented and 129 cases of breast cancer, invasive and non-invasive, would be overdiagnosed; that is one breast cancer death prevented for about every three overdiagnosed cases identified and treated. Of the roughly 307 000 women aged 50–52 years who are invited to begin screening every year, just over 1% would have an overdiagnosed cancer in the next 20 years. Evidence from a focus group organised by Cancer Research UK and attended by some members of the Panel showed that many women feel that accepting the offer of breast screening is worthwhile, which agrees with the results of previous similar studies. Information should be made available in a transparent and objective way to women invited to screening so that they can make informed decisions.**



# What are the benefits and harms of prostate cancer screening?

**After a comprehensive review of the evidence, the U.S. Preventive Services Task Force found:**

## **Possible benefit of screening**

The reduction in prostate cancer deaths from prostate-specific antigen (PSA) screening is at most very small. A large U.S. study showed no benefit from screening. A large European study that found the highest reported benefit suggests:

- **1 man in 1,000 – at most – avoids death from prostate cancer because of screening**



## Expected harms of screening

Most prostate cancers found by PSA screening are slow growing, not life threatening, and will not cause a man any harm during his lifetime. However, there is currently no way to determine which cancers are likely to threaten a man's health and which will not. As a result, almost all men with PSA-detected prostate cancer opt to receive treatment. In addition to the frequent complications of biopsy that lead to a cancer diagnosis, there can be serious harms from treatment of screen-detected prostate cancer.

For every 1,000 men who are screened with the PSA test:

- **30 to 40 men will develop erectile dysfunction or urinary incontinence due to treatment**
- **2 men will experience a serious cardiovascular event, such as a heart attack, due to treatment**
- **1 man will develop a serious blood clot in his leg or lungs due to treatment**

For every 3,000 men who are screened with the PSA test:

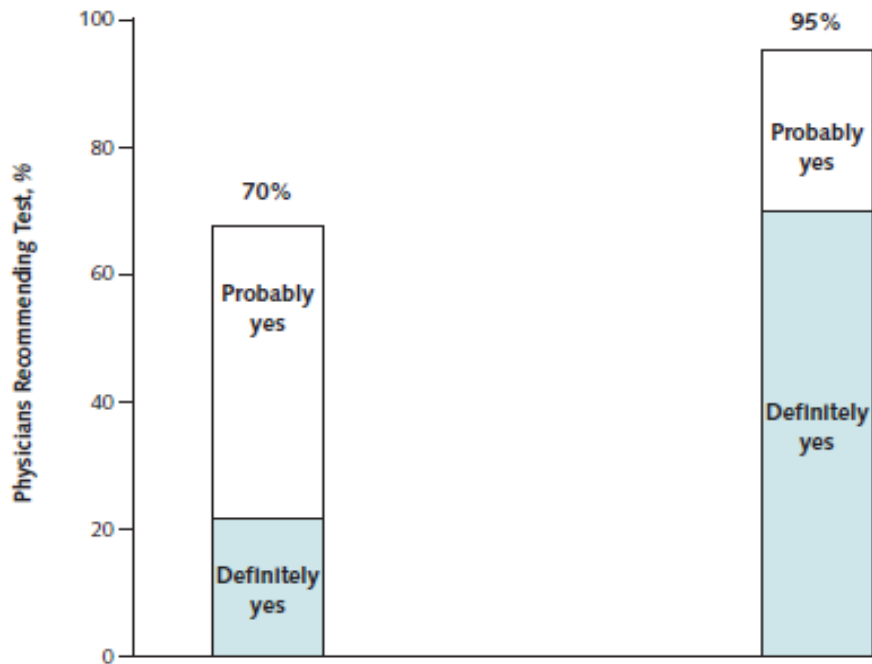
- **1 man will die due to complications from surgical treatment**

The U.S. Preventive Services Task Force recommends against prostate-specific antigen (PSA)-based screening for prostate cancer. The potential benefit does not outweigh the expected harms.

Proportion of physicians who would recommend a screening test on the basis of survival versus mortality rates.

Would you recommend this screening test to your patient?

Data presented	Case 1: mortality data		Case 2: 5-year survival data	
	No screening	Screening	No screening	Screening
	2 deaths per 1000	1.6 deaths per 1000	68%	99%
Correct answer	Recommend screening because reduced mortality is valid evidence of benefit.		Would not recommend screening because improved survival with screening is not valid evidence of benefit.	





# Historia de cribado en mujeres con cáncer infiltrante de cuello uterino

Silvia de Sanjosé<sup>a</sup> / Maria Alejo<sup>b</sup> / Neus Combalia<sup>c</sup> /  
Montserrat Culubret<sup>d</sup> / Xavier Tarroch<sup>e</sup> /  
Josep Maria Badal<sup>f</sup> / Imma Méndez<sup>g</sup> /  
Josefina Autonell<sup>b</sup> / F. Xavier Bosch<sup>a</sup>

**Tabla 1. Descripción de los 104 casos diagnosticados con un carcinoma escamoso o adenocarcinoma durante el período 2000-2003 en la Regió Sanitària Centre de Catalunya**

Historia de cribado	Número	%	Edad media (DE)	Diagnóstico histológico		Interpretación final
				Adenocarcinoma	Carcinoma infiltrante	
Con citología previa:	19	18,3	49,3 (12,5)*	8 (30,8)	11 (14,1)	Falsos negativos
Normal <sup>a</sup>	9		53,3 (13,6)	5	4	Sensibilidad pobre
Patológica <sup>b</sup>	8		44,6 (3,6)	1	7	Fallo seguimiento
Reclasificada como patológica	2		51 (15,6)	2	0	Fallo lectura
Sin citología previa	85	81,7	57,1 (2,0)*	15 (69,2)	67 (85,9)	Fallo cobertura
Total	104	100	54,8 (16,1)	26	78	

# LA MEDICALIZACION DE LA SOCIEDAD



Barrán, Bayce, Cheroni, de Mattos, Labisch, Moreira, Portillo, Porzecanski, Rodriguez, Romero, Viñar

# NEMESIS MEDICA

La expropiación de la salud



# THE MEDICALIZATION of SOCIETY

On the Transformation of Human Conditions into Treatable Disorders

Peter Conrad

LESS IS MORE

# Overuse of Health Care Services in the United States

## *An Understudied Problem*

Deborah Korenstein, MD; Raphael Falk, MD, MPH; Elizabeth A. Howell, MD, MPP;  
Tara Bishop, MD, MPH; Salomeh Keyhani, MD, MPH

**Background:** Overuse, the provision of health care services for which harms outweigh benefits, represents poor quality and contributes to high costs. A better understanding of overuse in US health care could inform efforts to reduce inappropriate care. We performed an extensive search for studies of overuse of therapeutic procedures, diagnostic tests, and medications in the United States and describe the state of the literature.

**Methods:** We searched MEDLINE (1978-2009) for studies measuring US rates of overuse of procedures, tests, and medications, augmented by author tracking, reference tracking, and expert consultation. Four reviewers screened titles; 2 reviewers screened abstracts and full articles and extracted data including overuse rate, type of service, clinical area, and publication year.

**Results:** We identified 172 articles measuring overuse: 53 concerned therapeutic procedures; 38, diagnostic tests; and 81, medications. Eighteen unique therapeutic procedures and 24 diagnostic services were evaluated, including 10 preventive diagnostic services. The most commonly studied services were antibiotics for upper respiratory tract infections (59 studies), coronary angiography (17 studies), carotid endarterectomy (13 studies), and coronary artery bypass grafting (10 studies). Overuse of carotid endarterectomy and antibiotics for upper respiratory tract infections declined over time.

**Conclusions:** The robust evidence about overuse in the United States is limited to a few services. Reducing inappropriate care in the US health care system likely requires a more substantial investment in overuse research.

*Arch Intern Med.* 2012;172(2):171-178

**Table 2. Most Commonly Evaluated Health Care Services: Overuse Rates Over Time<sup>a</sup>**

Service	Condition(s)	No. of Studies	Range of Overuse Rates, % (1978-1999)	Range of Overuse Rates, % (2000-2009)
Therapeutic procedures				
Coronary angiography <sup>b</sup>	Myocardial infarction, coronary artery disease	17	4.0-17.4	8.0-21.8
Coronary revascularization <sup>c</sup>	Coronary artery disease	16	2.0-15.0	1.4-14.0
Carotid endarterectomy	Carotid stenosis	13	1.0-33.0	8.6-10.6
Diagnostic tests				
Upper endoscopy <sup>d</sup>	Bleeding (upper), peptic ulcer disease	7	5.2-19.6	19.0-23.0
Radiographs in acute respiratory illnesses	Bronchiolitis or croup, asthma	5	70.0 <sup>e</sup>	32.0-72.0
Colonoscopy <sup>d</sup>	Colon cancer screening and follow-up	4	18.4-22.9	23.0-60.8
Imaging in low back pain	Low back pain	5	28.0 <sup>e</sup>	4.5-28.0
Prostate-specific antigen	Prostate cancer screening and follow-up	4	None	16.1-80.0
Medications				
Antibiotics	Upper respiratory tract infection, acute bronchitis	59	17.0-85.0	2.0-89.0
Bronchodilators	Bronchiolitis obstructive diseases	6	12.0-69.0	30.0-81.0

<sup>a</sup>When original studies presented ranges of overuse rates, values presented are the lower end of the range. Includes services evaluated in 4 or more separate studies. See the eTable and eReferences for details of all studies.

<sup>b</sup>Includes studies with or without percutaneous intervention.

<sup>c</sup>Includes studies evaluating coronary artery bypass grafting and additional forms of revascularization

<sup>d</sup>A 2003 study reporting a single rate of overuse of endoscopy or colonoscopy is included in both categories.

<sup>e</sup>Evaluated in a single study during the period.

## Appropriate Use of Screening and Diagnostic Tests to Foster High-Value, Cost-Conscious Care

Amir Qaseem, MD, PhD, MHA; Patrick Alguire, MD; Paul Dallas, MD; Lawrence E. Feinberg, MD; Faith T. Fitzgerald, MD; Carrie Horwitch, MD, MPH; Linda Humphrey, MD, MPH; Richard LeBlond, MD; Darlyn Moyer, MD; Jeffrey G. Wiese, MD; and Steven Weinberger, MD

Unsustainable rising health care costs in the United States have made reducing costs while maintaining high-quality health care a national priority. The overuse of some screening and diagnostic tests is an important component of unnecessary health care costs. More judicious use of such tests will improve quality and reflect responsible awareness of costs. Efforts to control expenditures should focus not only on benefits, harms, and costs but on the value of diagnostic tests—meaning an assessment of whether a test provides health benefits that are worth its costs or harms. To begin to identify ways that practicing clinicians can contribute to the

delivery of high-value, cost-conscious health care, the American College of Physicians convened a workgroup of physicians to identify, using a consensus-based process, common clinical situations in which screening and diagnostic tests are used in ways that do not reflect high-value care. The intent of this exercise is to promote thoughtful discussions about these tests and other health care interventions to promote high-value, cost-conscious care.

*Ann Intern Med.* 2012;156:147-149.  
For author affiliations, see end of text.

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# Unnecessary Tests and Procedures In the Health Care System

What Physicians Say About  
The Problem, the Causes, and the Solutions  
*Results from a National Survey of Physicians*

May 1, 2014

Conducted for  
The ABIM Foundation

Nearly 3 in 4  
physicians say  
unnecessary tests  
and procedures  
represent a serious  
problem in the  
health care system.

A majority of  
physicians feels a  
strong responsibility  
to help their  
patients avoid  
unnecessary care.

May 1, 2014. Funded by the Robert Wood Johnson Foundation, the ABIM Foundation commissioned PerryUndem Research/Communication to conduct a national survey of physicians. The purpose of the survey was to gauge physicians' attitudes toward the problem of unnecessary tests and procedures in the health care system, views on the causes of the problem, and their perspectives on various solutions. The survey also measured exposure to the Choosing Wisely® campaign and compared self-reported behaviors between those with and without exposure to the campaign.

The survey was conducted by telephone from February 12 through March 21, 2014 among n = 600 physicians (primary care and specialists) nationwide. The margin of sampling error is  $\pm 4.0$  percentage points. The margin of error is larger for smaller subsamples. More information about the methodology can be found at the end of this report.

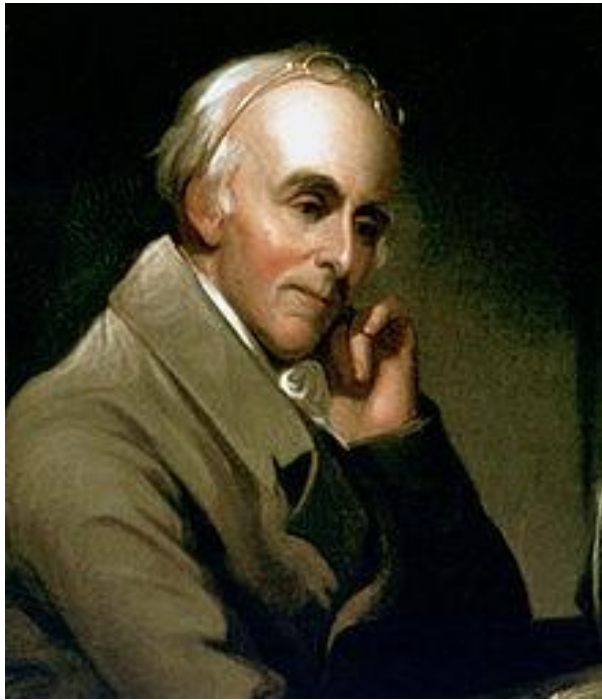
*Sponsored by the Robert Wood Johnson Foundation*

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**to do or not to do?**

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Benjamin Rush  
1746-1813



Joseph Skoda  
1805-1881



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# Changes in Mortality After Massachusetts Health Care Reform: A Quasi-experimental Study

Benjamin D. Sommers, MD, PhD; Sharon K. Long, PhD; and Katherine Baicker, PhD

**Background:** The Massachusetts 2006 health care reform has been called a model for the Affordable Care Act. The law attained near-universal insurance coverage and increased access to care. Its effect on population health is less clear.

**Objective:** To determine whether the Massachusetts reform was associated with changes in all-cause mortality and mortality from causes amenable to health care.

**Design:** Comparison of mortality rates before and after reform in Massachusetts versus a control group with similar demographics and economic conditions.

**Setting:** Changes in mortality rates for adults in Massachusetts counties from 2001 to 2005 (prereform) and 2007 to 2010 (postreform) were compared with changes in a propensity score–defined control group of counties in other states.

**Participants:** Adults aged 20 to 64 years in Massachusetts and control group counties.

**Measurements:** Annual county-level all-cause mortality in age-, sex-, and race-specific cells ( $n = 146\,825$ ) from the Centers for Disease Control and Prevention's Compressed Mortality File. Secondary outcomes were deaths from causes amenable to health care, insurance coverage, access to care, and self-reported health.

**Results:** Reform in Massachusetts was associated with a significant decrease in all-cause mortality compared with the control group ( $-2.9\%$ ;  $P = 0.003$ , or an absolute decrease of 8.2 deaths per 100 000 adults). Deaths from causes amenable to health care also significantly decreased ( $-4.5\%$ ;  $P < 0.001$ ). Changes were larger in counties with lower household incomes and higher prereform uninsured rates. Secondary analyses showed significant gains in coverage, access to care, and self-reported health. The number needed to treat was approximately 830 adults gaining health insurance to prevent 1 death per year.

**Limitations:** Nonrandomized design subject to unmeasured confounders. Massachusetts results may not generalize to other states.

**Conclusion:** Health reform in Massachusetts was associated with significant reductions in all-cause mortality and deaths from causes amenable to health care.

# Impact of primary health care on mortality from heart and cerebrovascular diseases in Brazil: a nationwide analysis of longitudinal data

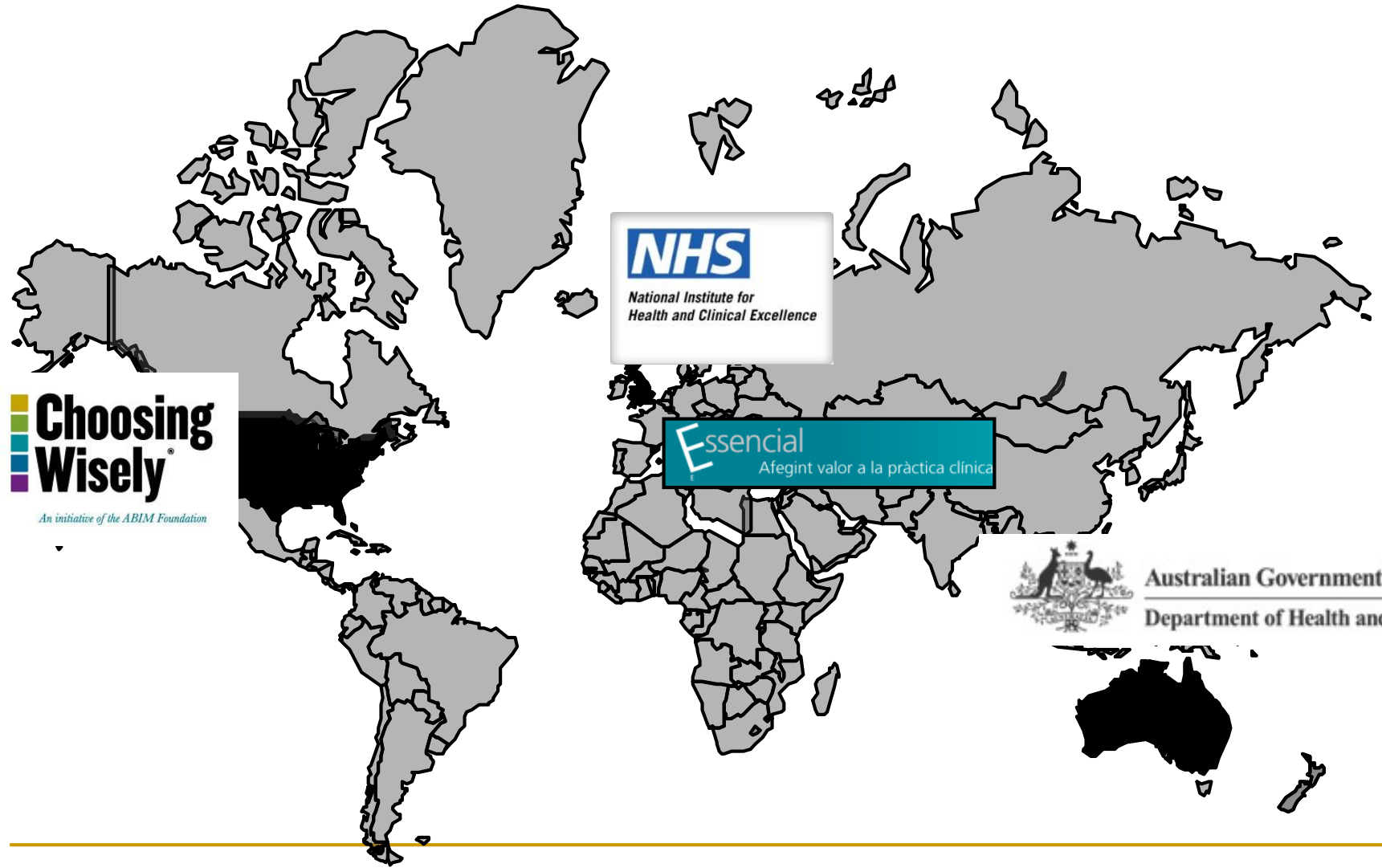
**Design** Ecological longitudinal design, evaluating the impact of FHP using negative binomial regression models for panel data with fixed effects specifications.

**Setting** Nationwide analysis of data from Brazilian municipalities covering the period from 2000 to 2009.



**Results** FHP coverage was negatively associated with mortality rates from cerebrovascular and heart diseases (ambulatory care-sensitive conditions) in both unadjusted and adjusted models for demographic, social, and economic confounders. The FHP had no effect on the mortality rate for accidents, used as a control. The rate ratio for the effect of consolidated annual FHP coverage on cerebrovascular disease mortality and on heart disease mortality was 0.82 (95% confidence interval 0.79 to 0.86) and 0.79 (0.75 to 0.80) respectively, reaching the value of 0.69 (0.66 to 0.73) and 0.64 (0.59 to 0.68) when the coverage was consolidated during all the previous eight years. Moreover, FHP coverage increased the number of health education activities, domiciliary visits, and medical consultations and reduced hospitalisation rates for cerebrovascular and heart disease. Several complementary analyses showed quantitatively similar results.

Davide Rasella *postdoctoral researcher*<sup>1</sup>, Michael O Harhay *PhD student*<sup>2</sup>, Marina L Pamponet *researcher*<sup>1</sup>, Rosana Aquino *associate professor*<sup>1,2</sup>, Mauricio L Barreto *professor*<sup>1,2</sup>



**Choosing Wisely**  
An initiative of the ABIM Foundation

**NHS**  
National Institute for  
Health and Clinical Excellence

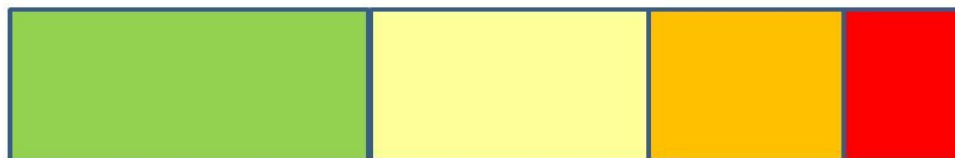
**Essencial**  
Afeitant valor a la pràctica clínica



Australian Government  
Department of Health and Ageing



Situación inicial



Situación de crisis controlada



Sentido lógico de los recortes



Recortes "con cabeza"

Situación de crisis descontrolada



Recortes indiscriminados

José Ignacio Landa García .Consell Asessor CGOMC

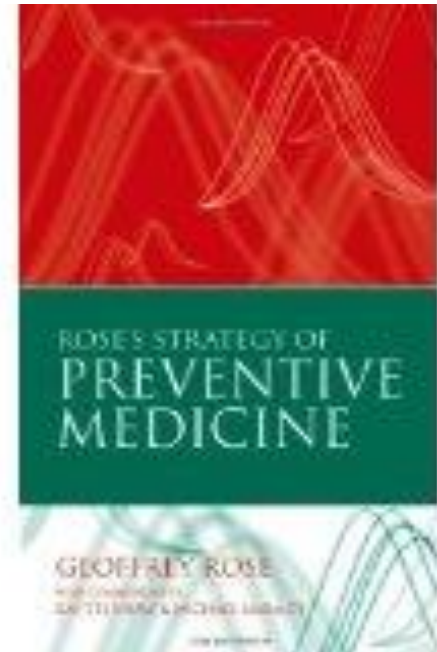
<http://www.medicosypacientes.com>

## 2. DESINVERTIR EN LO QUE NO AÑADE SALUD.

Cuando el presupuesto disminuye o no aumenta, no sólo hay que prestar atención a que lo nuevo sea útil y asequible, sino a lo que se va a eliminar para financiar las innovaciones. Se requiere reorientar las prioridades de financiación, lo que comúnmente se etiqueta como “desinversión”. Entendemos por **desinversión** el proceso explícito mediante el cual se dejan de financiar parcial o completamente medicamentos, dispositivos, aparatos, procedimientos o servicios con **escaso valor clínico**. Distinguimos dos áreas de actuación: las intervenciones de valor dudoso y la mala calidad de los servicios prestados. En el primer grupo se incluyen intervenciones **inefectivas** (como la prescripción de estatinas en prevención primaria de muerte por cardiopatía isquémica); aquéllas en las que el **balance beneficio-riesgo** se desplaza netamente hacia el segundo (cualquier cirugía electiva en paciente no elegible); las **prescindibles por innecesarias** (entre otras, un tercio de los tratamientos antibióticos en Atención Primaria); las **potencialmente “cosméticas”** (como la operación estética de varices); las **eficaces con alternativas más coste-efectivas** que deberían ser consideradas en primer lugar (por ejemplo, la mitad de los tratamientos de osteoporosis); y las **intervenciones efectivas pero con relación beneficio-riesgo incierta para el caso de los pacientes “medios”** (como las cirugías de cadera, rodilla o cataratas). En el segundo grupo (mala calidad de los servicios prestados) se incluyen los efectos adversos evitables derivados de la prestación de servicios médicos (infecciones hospitalarias, errores de medicación, etc.).



1926-1993





<http://shop.redcrossmuseum.ch/media/wysiwyg//Accueil/home-shop.jpg>

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# Why the prevention paradox is a paradox, and why we should solve it: A philosophical view

This paper provides some philosophical comments on Rose's prevention paradox, suggesting why that paradox seems so difficult, and why policy-makers should care about solving it. The assumptions underlying the paradox section sets out two ways of understanding the notion of "benefit" in public health programmes, and shows how the prevention paradox arises from combining both understandings. Thinking through the paradox section argues that if we find the second understanding of benefit appealing, then we should rethink how we typically assess preventive public health measures. The implications section shows how these theoretical arguments imply that public health practitioners should care about solving the prevention paradox, rather than simply denying the legitimacy of one of the two views from which it arises.

Preventive Medicine 53 (2011) 250–252



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