

# Euristiche, *bias* e “spinte gentili”

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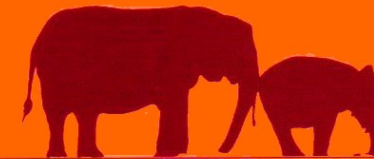
# Nudge



Improving Decisions  
About Health, Wealth,  
and Happiness

**RICHARD H. THALER  
CASS R. SUNSTEIN**

**Nudge**



Serie Bianca Feltrinelli



## **LA SPINTA GENTILE**

La nuova strategia per migliorare  
le nostre decisioni su denaro, salute, felicità

«Ci sono tanti bei libri sulla razionalità  
e l'irrazionalità umana, ma soltanto uno è un capolavoro.  
Questo capolavoro si chiama *PENSIERI LENTI E VELOCI*,  
di Daniel Kahneman.»

FINANCIAL TIMES

# PENSIERI LENTI E *VELOCI*



DANIEL  
KAHNEMAN

– PREMIO NOBEL PER L'ECONOMIA –

MONDADORI

Vollstimmuna und Großdeutscher Reichstag

Stimmzettel

Bist Du mit der am 13. März 1938 vollzogenen

**Wiedervereinigung Österreichs mit dem Deutschen Reich**

einstimmig und stimmst Du für die Liste unseres Führers

**Adolf Hitler?**

Ja



Nein



Translation: "Referendum and Großdeutscher Reichstag; Ballot; Do you agree with the reunification of Austria with the German Reich that was enacted on 13 March 1938 and do you vote for the party of our leader; Adolf Hitler?; Yes; No"

## Do Defaults Save Lives?

Eric J. Johnson\* and Daniel Goldstein

Since 1995, more than 45,000 people in the United States have died waiting for a suitable donor organ. Although an oft-cited poll (1) showed that 85% of Americans approve of organ donation, less than half had made a decision about donating, and fewer still (28%) had granted permission by signing a donor card, a pattern also observed in Germany, Spain, and Sweden (2–4). Given the shortage of donors, the gap between approval and action is a matter of life and death.

What drives the decision to become a potential donor? Within the European Union, donation rates vary by nearly an order of magnitude across countries and these differences are stable from year to year. Even when controlling for variables such as transplant infrastructure, economic and educational status, and religion (5), large differences in donation rates persist. Why?

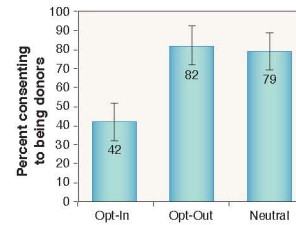
Most public policy choices have a no-action default, that is, a condition is imposed when an individual fails to make a decision (6, 7). In the case of organ donation, European countries have one of two default policies. In presumed-consent states, people are organ donors unless they register not to be, and in explicit-consent countries, nobody is an organ donor without registering to be one.

According to a classical economics view, preferences exist and are available to the decision-maker—people simply find too little value in organ donation. This view has led to calls for the establishment of a regulated market for the organs of the deceased (8, 9), for the payment of donors or donors' families (10, 11), and even for suggestions that organs should become public property upon death (12). Calls for campaigns to change public attitudes (13) are widespread. In classical economics, defaults should have a limited effect: when defaults are not consistent with preferences, people would choose an appropriate alternative.

A different hypothesis arises from research depicting preferences as constructed, that is, not yet articulated in the minds of those who have not been asked (14–16). In

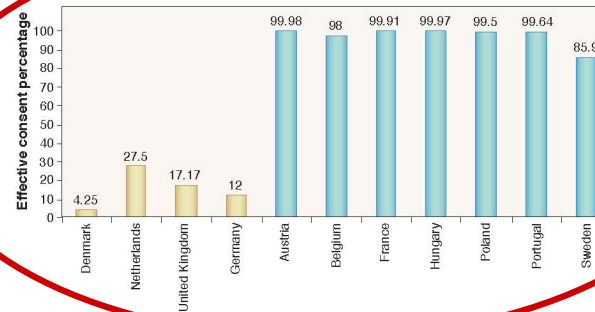
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Effective consent rates, online experiment, as a function of default.

preferences for being an organ donor are constructed, defaults can influence choices in three ways: First, decision-makers might believe that defaults are suggestions by the policy-maker, which imply a recommended action. Second, making a decision often involves effort, whereas accepting the default is effortless. Many people would rather avoid making an active decision about donation, because it can be unpleasant and stressful (17). Physical effort such as filling out a form may also increase acceptance of the default (18). Finally, defaults often represent the existing state or status quo, and change usually involves a trade-off. Psychologists have shown that losses loom larger than the equivalent gains, a phenomenon known as loss aversion (19). Thus, changes in the default may result in a change of choice.



Effective consent rates, by country. Explicit consent (opt-in, gold) and presumed consent (opt-out, blue).

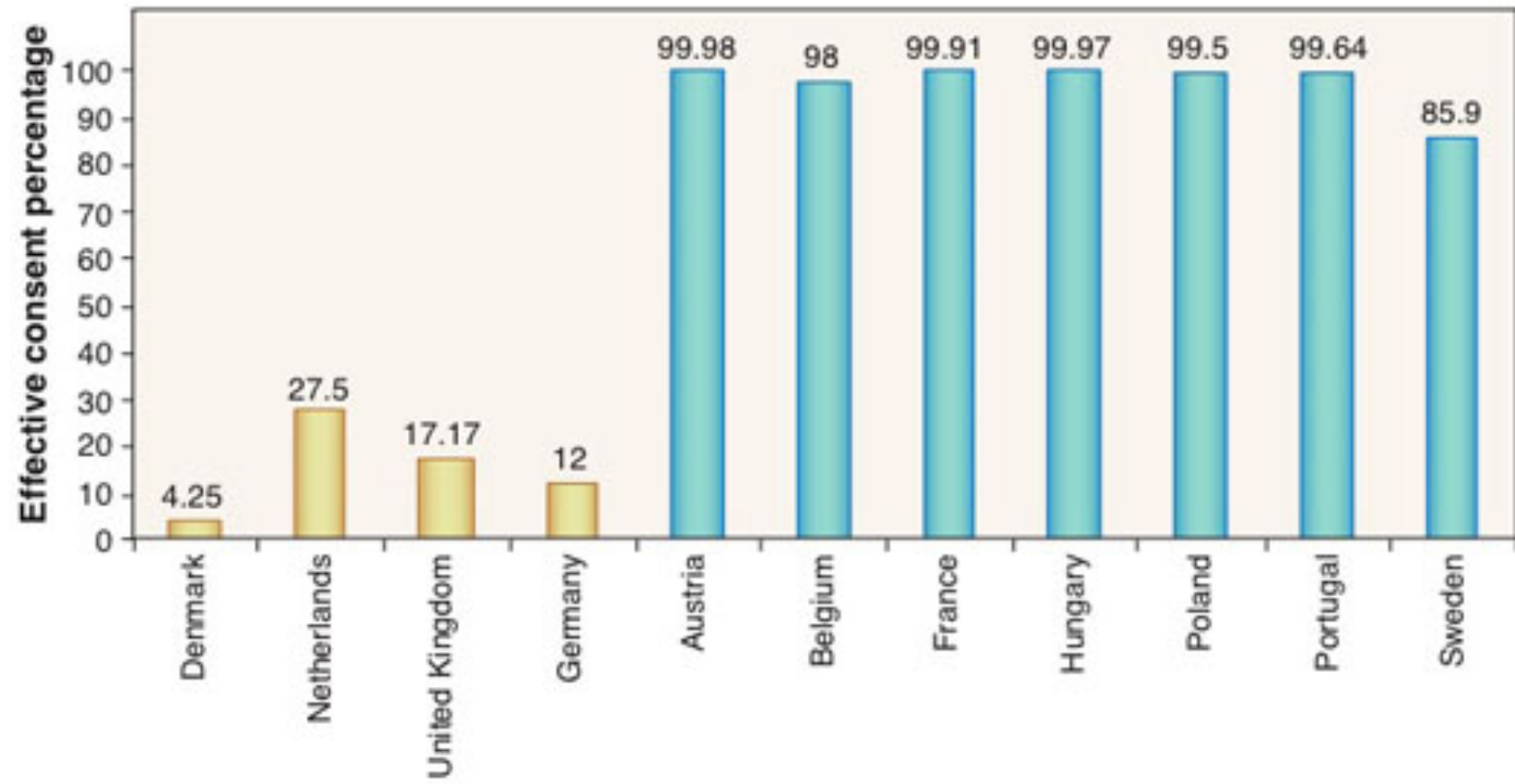
Governments, companies, and public agencies inadvertently run “natural experiments” testing the power of defaults. Studies of insurance choice (20), selection of Internet privacy policies (21, 22), and the level of pension savings (23) all show large effects, often with substantial financial consequences.

### Defaults and Organ Donations

We investigated the effect of defaults on donation agreement rates in three studies. The first used an online experiment (24): 161 respondents were asked whether they would be donors on the basis of one of three questions with varying defaults. In the opt-in condition, participants were told to assume that they had just moved to a new state where the default was not to be an organ donor, and they were given a choice to confirm or change that status. The opt-out condition was identical, except the default was to be a donor. The third, neutral condition simply required them to choose with no prior default. Respondents could at a mouse click change their choice, largely eliminating effort explanations.

The form of the question had a dramatic impact (see figure, left): Revealed donation rates were about twice as high when opting-out as when opting-in. The opt-out condition did not differ significantly from the neutral condition (without a default option). Only the opt-in condition, the current practice in the United States, was significantly lower.

In the last two decades, a number of European countries have had opt-in or opt-out default options for individuals' decisions to become organ donors. Actual decisions about organ donation may be affected by governmental educational programs, the





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### The White House

Office of the Press Secretary

For Immediate Release

September 15, 2015

# Executive Order -- Using Behavioral Science Insights to Better Serve the American People

EXECUTIVE ORDER

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USING BEHAVIORAL SCIENCE INSIGHTS TO

BETTER SERVE THE AMERICAN PEOPLE

A growing body of evidence demonstrates that behavioral science insights -- research findings from fields such as behavioral economics and psychology about how people make decisions and act on them -- can be used to design government policies to better serve the American people.

Where Federal policies have been designed to reflect behavioral science insights, they have substantially improved outcomes for the individuals, families, communities, and businesses those policies serve. For example, automatic enrollment and automatic escalation

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## Understanding and improving decisions in clinical medicine (IV): prospects and challenges of nudging in healthcare

Vincenzo Crupi<sup>1</sup>  · Fabrizio Calzavarini<sup>1</sup> · Fabrizio Elia<sup>2</sup> · Franco Aprà<sup>2</sup>

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### Key Points

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The cognitive science of human decision making suggests a novel kind of approach to modifying people's behavior: *nudging*.

A nudge intervention implies a non-coercive and typically small change of the choice context that exploits inherent tendencies of agents in order to promote beneficial outcomes.

Studies show that—if properly motivated, devised, and tested—nudges can improve practice in internal and emergency medicine facilities.

Nudge interventions are not meant to displace more traditional tools to promote beneficial behavior (training, regulations), but to combine with them.

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(rewards and penalties) such that different courses of action now better serve the agent's goals. Or, third, it can happen because consequential choices were previously hindered by some disturbing factor (e.g., stress or fatigue) that has been reduced or removed (for instance, by some organizational or technological amelioration).

Given the crucial flaws of the logic-plus-error view, however, one should not be surprised to see that this approach can face spectacular failures in important cases, including the healthcare domain. Even in apparently convenient conditions of information and incentive, people may still fail to behave appropriately. In fact, choices do not usually arise as



## BMJ Open Increasing compliance with low tidal volume ventilation in the ICU with two nudge-based interventions: evaluation through intervention time-series analyses

Christopher P Bourdeaux,<sup>1</sup> Matthew JC Thomas,<sup>1</sup> Timothy H Gould,<sup>1</sup> Gaurav Malhotra,<sup>2</sup> Andreas Jarvstad,<sup>2</sup> Timothy Jones,<sup>3</sup> Iain D Gilchrist<sup>2</sup>



This Issue

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Editorial



May 2015

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## Nudging Students Toward Healthier Food Choices—Applying Insights From Behavioral Economics

Mitesh S. Patel, MD, MBA, MS<sup>1,2,3,4</sup>; Kevin G. Volpp, MD, PhD<sup>1,2,3,4,5</sup>

[» Author Affiliations](#)

*JAMA Pediatr.* 2015;169(5):425-426. doi:10.1001/jamapediatrics.2015.0217

### Original Investigation

FREE

February 9, 2016

## Effect of Behavioral Interventions on Inappropriate Antibiotic Prescribing Among Primary Care Practices: A Randomized Clinical Trial

Daniella Meeker, PhD<sup>1,2</sup>; Jeffrey A. Linder, MD, MPH<sup>3,4</sup>; Craig R. Fox, PhD<sup>5,6</sup>; [et al](#)

[» Author Affiliations](#) | [Article Information](#)

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## “Nudge” in the clinical consultation – an acceptable form of medical paternalism?

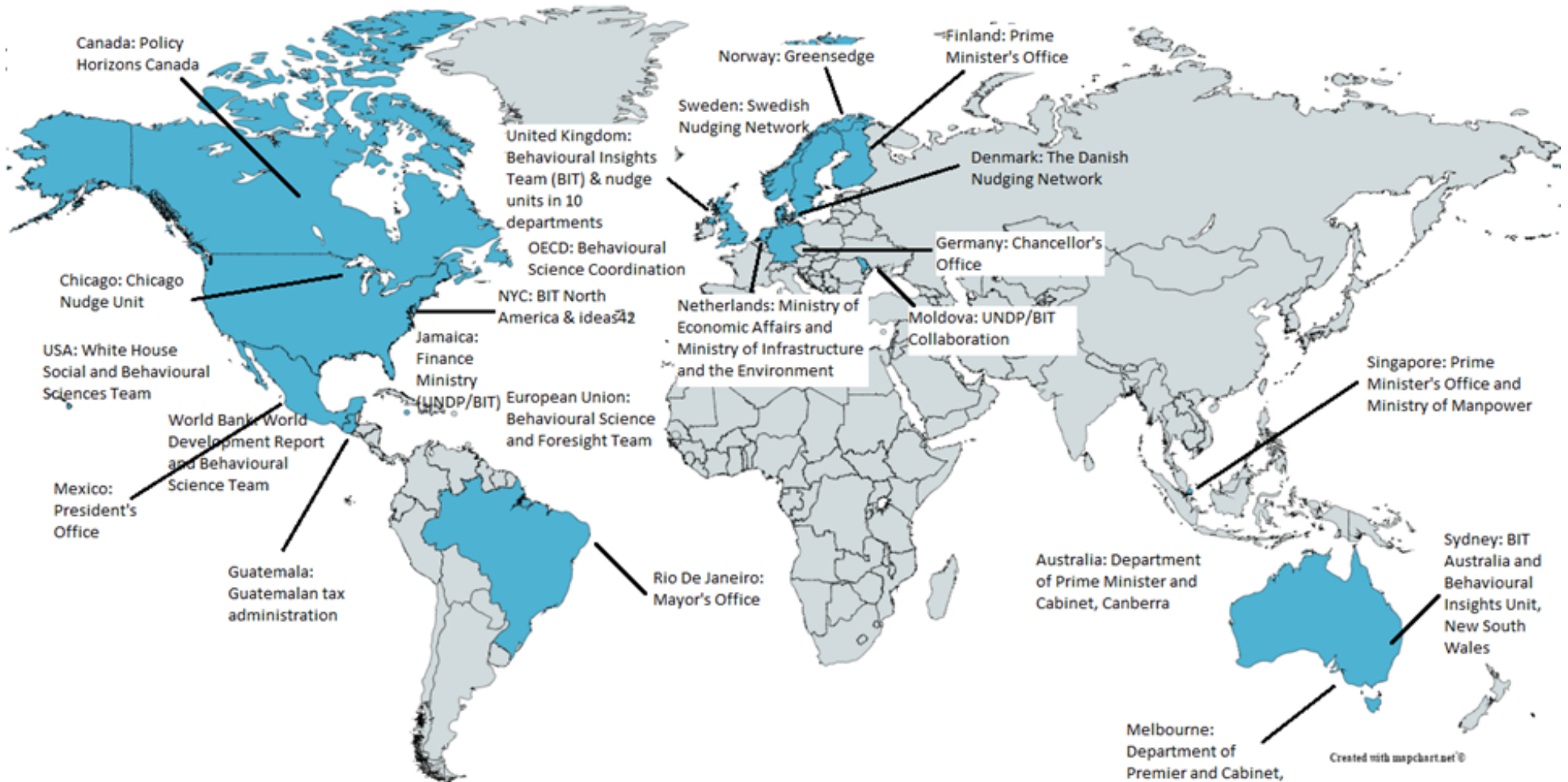
Ajay Aggarwal , Joanna Davies and Richard Sullivan

*BMC Medical Ethics* 2014 15:31 | DOI: 10.1186/1472-6939-15-31 | © Aggarwal et al.; licensee BioMed Central Ltd. 2014

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# NUDGE UNITS AROUND THE WORLD





## Our Team

We are a behavioral design team embedded within Penn Medicine that bridges research activities at the [Center for Health Incentives and Behavioral Economics \(CHIBE\)](#) and innovation efforts at the [Penn Medicine Center for Health Care Innovation](#). Our team has experience implementing nudges within a wide range of clinical care settings. These approaches are conducted with support from health system leadership and in collaboration with clinicians and staff on the front lines of care. Our steering committee is composed of individuals with expertise in clinical care, behavioral economics, and information technology.

**Our Team**

Steering Committee



## Italian Nudge Unit

In December 2016 the **Interdisciplinary Group for the Study and the Management of Healthcare Decisions** [**Gruppo interdisciplinare per lo Studio e la Gestione delle Decisioni in Sanità**] has been officially founded

**Protocollo d'intesa per la costituzione ed il funzionamento di un Gruppo per lo studio e la gestione delle decisioni in sanità.**

**L'Agenzia Regionale di Sanità**, di seguito denominata "Agenzia e/o ARS", (Cod. Fisc./P.I. 04992010480), rappresentata in questo atto dal Dott. Andrea Vannucci, in qualità di Direttore e legale rappresentante dell'Ente, nato a Firenze il 06/02/1952 e domiciliato per la carica presso la sede dell'Agenzia in Via Pietro Dazzi, 1 a Firenze

e

**L'Azienda Sanitaria Locale Città di Torino**, di seguito denominata "Azienda" e/o "ASL", Cod. Fisc./P.IVA 11632570013 rappresentata in questo atto dal Dott. Valerio Fabio Alberti, in qualità di Direttore Generale e legale rappresentante dell'Azienda, nato ad Aosta il 13/11/1953 e domiciliato per la carica presso la sede legale provvisoria dell'Azienda, Corso Svizzera 164, che ha sede operativa in Via San Secondo 29 a Torino

e

**Il Dipartimento di Filosofia e Scienze dell'Educazione dell'Università degli studi di Torino**, di seguito denominato anche "Dipartimento e/o Università e/o Università di Torino", Cod. Fisc. 80088230018/P.IVA 02099550010 rappresentata in questo atto dal Prof. Renato Grimaldi, in qualità di Direttore del Dipartimento nato a Cossano Belbo (CN) il 13/06/1951 e domiciliato per la carica presso la sede dell'Ente in Via Sant'Ottavio 20 a Torino

# Italian Nudge Unit

In December 2016 the  
**Interdisciplinary Group  
for the Study and the  
Management of  
Healthcare Decisions**

[Gruppo interdisciplinare  
per lo Studio e la Gestione  
delle Decisioni in Sanità]

has been officially  
founded



Regione Toscana



SST  
Servizio  
Sanitario  
della  
Toscana

WORKSHOP

## NUDGE DAY #1

Scienze comportamentali, complessità e spinte gentili:  
gli orizzonti *nudge* per la sanità

15 MAGGIO 2019

Sala delle Fanciulle, Villa La Quiete – Via di Boldrone 2, Firenze

"Se ascolto dimentico, se vedo ricordo, se faccio imparo." (Confucio)

*"Gli inglesi con la nudge hanno diminuito il numero di prescrizioni di antibiotici, nonché i costi dovuti ai mancati appuntamenti per le visite ospedaliere; i canadesi si stanno adoperando per aumentare il numero di donazioni di organi, mentre i danesi e i tedeschi promuovono, con il "nudging", una migliore qualità dell'alimentazione; gli americani, poi, stanno testando interventi nudge per aumentare l'adesione alla vaccinazione...*

*...noi, in Toscana, che cosa faremo?"*

Il primo *Nudge Day* della sanità toscana è un'occasione per:

- prendere confidenza con le iniziative di sanità pubblica ispirate dalle scienze comportamentali, per la gestione delle decisioni in ambiente complesso,
- valutare insieme l'efficacia delle iniziative già realizzate a livello internazionale e locale,
- ragionare sulle opportunità di progettare azioni innovative *nudge* in diversi ambiti del SSR,
- collaborare su proposte operative, in ottica di progettazione.

|       |  |
|-------|--|
| 09:30 | Registrazione dei partecipanti   |
| 10:00 | Introduzione<br>F. Gemmi   |
| 10:10 | Le scelte decisionali in ambiente complesso<br>F. Aprà   |
| 10:20 | Decisione umana e spinte gentili ( <i>nudge</i> ): principi e applicazioni<br>G. Cevolani                          |
| 10:40 | <i>Nudge</i> in sanità: come migliorare le scelte e orientare i comportamenti<br>F. Calzavarini, V. Crupi, F. Elia |
| 11:10 | La <i>Nudge</i> nella sanità toscana: cosa abbiamo fatto e con quali risultati<br>S. Forni, G. Galletti            |
| 11:40 | Lavoro per gruppi. FASE 1<br>- VACCINAZIONE<br>- FINE VITA<br>- STILI DI VITA                                      |

# Why even good physicians do not wash their hands

Donald A Redelmeier,<sup>1</sup> Eldar Shafir<sup>2</sup>

<sup>1</sup>Sunnybrook Health Sciences Centre, Toronto, Ontario, Canada

<sup>2</sup>Department of Public Policy, Princeton, Princeton, New Jersey, USA

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## INTRODUCTION

Hospital-acquired infections contribute to an estimated 1.4 million deaths worldwide, including about 100 000 annually at a cost of \$30B in North America alone.<sup>1</sup> Inadequate hand hygiene remains a frequent and modifiable contributing factor, as established from hospital outbreaks of methicillin-resistant *Staphylococcus aureus*, vancomycin-resistant *Enterococcus*, and other hospital-acquired infections.<sup>2</sup> Much attention has been devoted to promoting greater hand-washing through persuasion, education or admonishment.<sup>3 4</sup> The purpose of this viewpoint is to highlight the countervailing behavioural factors that help explain the ongoing shortfalls

rather than deliberate. A second insight in behavioural research is that the first principle is easily ignored. Instead, a standard impulse is to interpret suboptimal behaviour as a personal failure that requires explanations, threats, incentives or critiques.<sup>7</sup> Hand washing, we propose, is a task where familiar behavioural factors conspire to undercut reliable patient care in hospitals by physicians who mean well, fail through natural limitations and are resented for it afterward.

## Affective factors

Bacteria are invisible to the unaided eye and imperceptible to touch. Thus, physicians have no easy way to determine



## **Aim of the study**

The aim of the study was to assess the efficacy of a **nudge intervention to increase handwashing compliance** in three wards of SGB Hospital

### **(1) Area Critica**

[intensive unit]

### **(2) Chirurgia Generale**

[general surgery]

### **(3) Medicina ad Intensità di Cure [MiC] 2**

[geriatrics]

## **Participants**

Physicians, Nurses, OSS



## **Aim of the study**

The aim of the study was to assess the efficacy of a **nudge intervention to increase handwashing compliance** in three wards of SGB Hospital

## **PARTICIPANTS**

### **Area Critica**

8 physicians, 19 nurses, 15 OSS [13 beds]

### **Chirurgia Generale**

18 physicians, 22 nurses, 8 OSS [28 beds]

### **Medicina ad Intensità di Cure [MiC] 2**

2 physicians, 15 nurses, 10 OSS [30 beds]

## Design

Quasi-experimental pre-test post-test (no control)

## Phase I

[from 15 January 2018 to 15 October 2018]

We collected the **baseline rates** of handwashing among professionals (doctors, nurses, OSS). No intervention has been performed.

## Phase II

[from 15 October 2018 to 15 July 2019]

We made the **nudge intervention** and then continued to **observe handwashing compliance** of the staff during the whole time window.





**+40%**  
**LAVAGGIO MANI**



**-40%**  
**INFEZIONI**

## HANDWASHING COMPLIANCE (%)

|                   | PRE   | POST  | p-value |
|-------------------|-------|-------|---------|
| AREA CRITICA      | 23.6% | 32.9% | 0.009   |
| MIC II PIANO      | 5.4%  | 16.8% | <0.001  |
| CHIRURGIA V PIANO | 7.46% | 12.5% | 0.006   |

## HYDROALCHOLIC SOLUTION CONSUMPTION (mL/gg/deg)

|                   | PRE  | POST |  |
|-------------------|------|------|--|
| AREA CRITICA      | 35.2 | 36.4 |  |
| MIC II PIANO      | 7.8  | 10.6 |  |
| CHIRURGIA V PIANO | 14.8 | 19.4 |  |

Grazie dell'attenzione!

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